ATTACHMENT 15

CHAIN-OF-CUSTODY SHEETS, GAMMA SURVEY RECORDS, AND ANCILLARY INFORMATION ASSOCIATED WITH SURVEY UNITS CONTAINING ANOMALOUS SOIL SAMPLE RESULTS AS LISTED IN TABLES 2 AND 3

(on CD only)

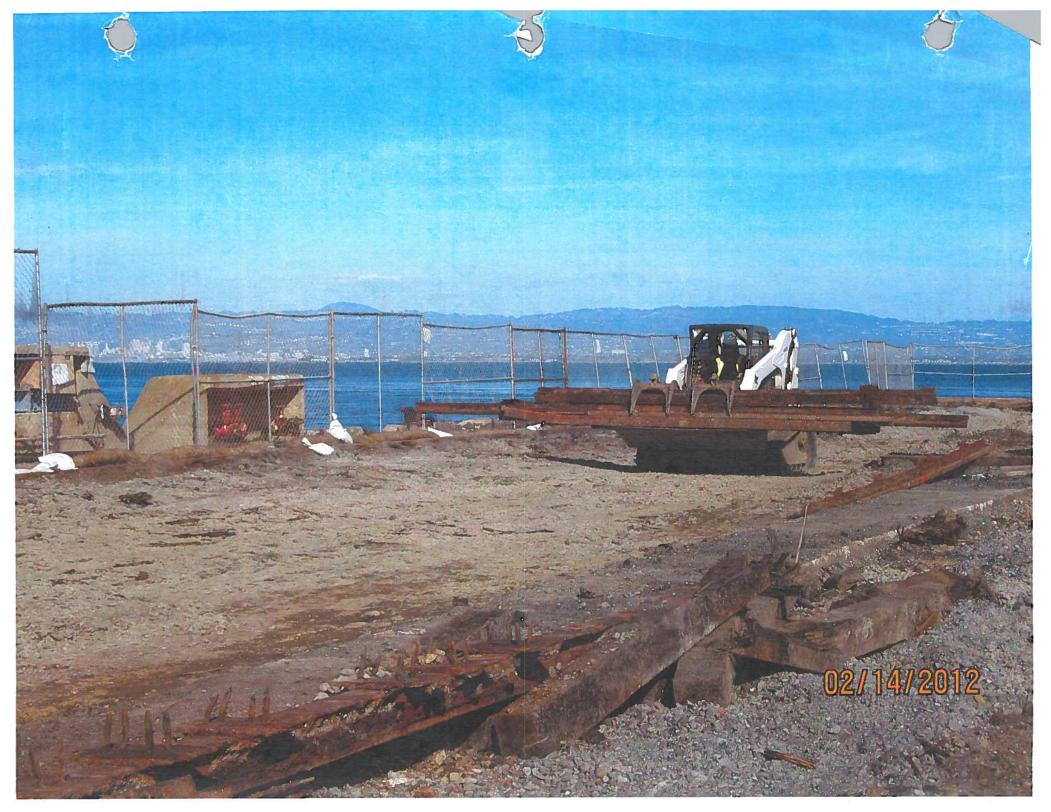
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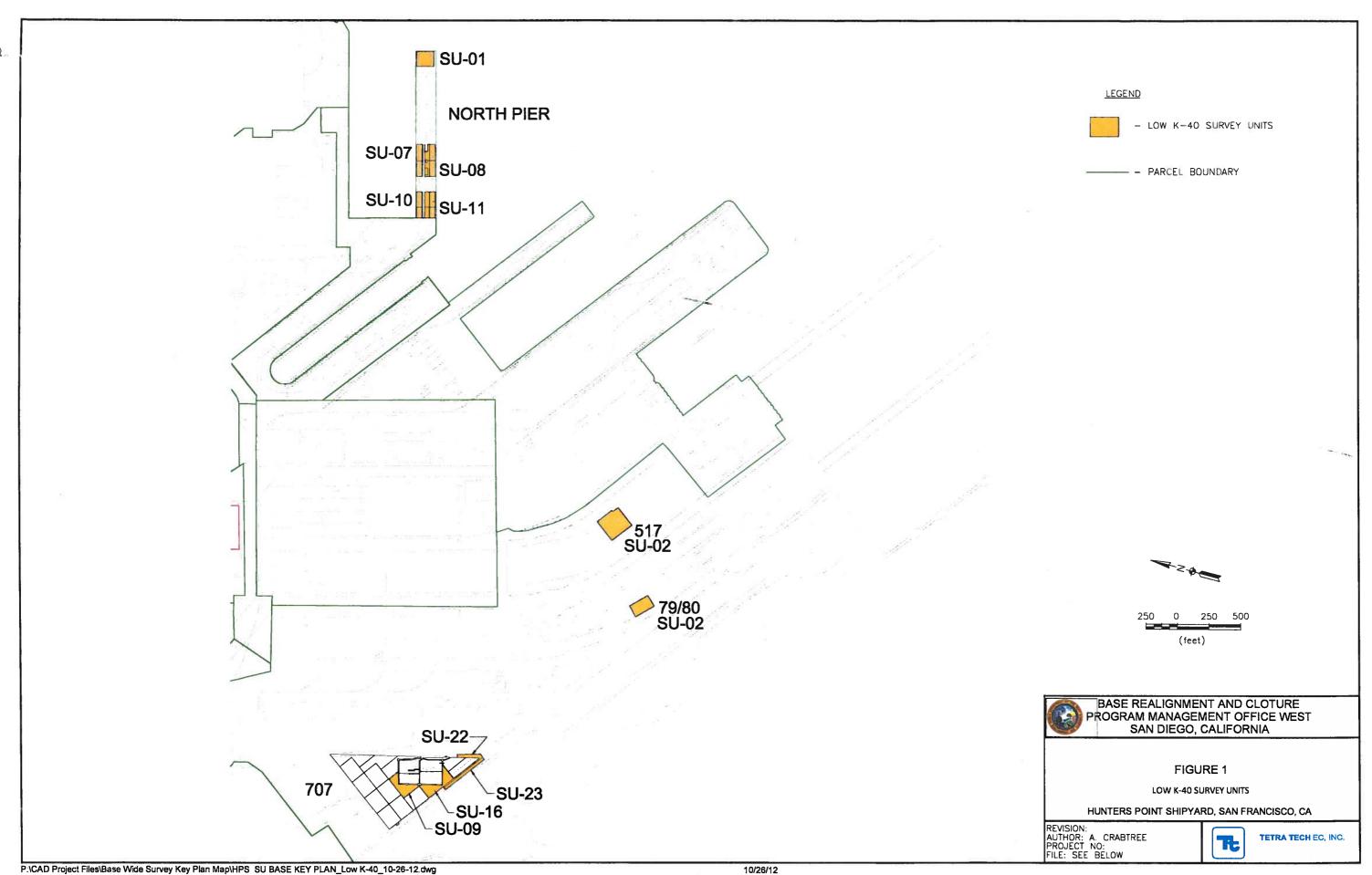
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	outh Final Systematic		Sample	Sets Sumbitted to t on the Same Col		tory		Average pt	Cilg for each Sa	mple Set	
Area	Survey Unit	Date	Other Sets Collected	Other Sets' Work Area(s)	Sample Type	# of Samples	K-40	Ra-226	Cs-137	Bi-214	Pb-214
707	16	7-Jun-11	TU192	WA33	Post-Remediation	3	8.6816667	1.6016667	-0.002302	0.9235333	1.0553333
			TU194	WA33	Post-Remediation	15	8.9774	1.7384933	-0.0002165	1.1592533	1.2522
			503-1	WA36	Systematic	20	11.05	0.5903385	0.01651934	0.32879	0.39105
			503-12	WA36 ·	Systematic	20	11.6591	0.7018	0.02464353	0.44671	0.49574
707	9	8-Jun-11	707-17	WA21	Systematic	20	5.4452	0.426523	-0.0022822	0.1902325	0.201465
			503-2	WA36	Systematic	20	11.0699	0.654845	0.01359965	0.283955	0.34918
			503-3	WA36	Systematic	20	11.46345	0.5296545	0.01241905	0.27648	0.33993
			503-4	WA36	Systematic	20	10.56035	0.49279	0.005210645	0.32902	0.3919
			503-5	WA36	Systematic	20	10.65195	0.58565	0.002949475	0.322905	0.35349
			503-6	WA36	Systematic	20	12.3204	0.68816485	0.012116105	0.351625	0.39877
7980	2	4-Apr-12	C0670	RSY2 Closeout	Closeout	3	11.749667	0.854	0.00201	0.5408667	0.5111667
			E0626	WA36	Characterization	2	9.0665	1.225	-0.0016095	1.059	1.187
			500SA-3	WA36	Post-Remediation	10	1.53473	0.146627	0.0014229	0.100825	0.144147
			500SA-18	WA36	Post-Remediation	3	10.530333	0.6224333	-0.0010542	0.3780667	0.4409667
		A. Barrier	MH1275	WA36	Sediment	1	20.53	0.6118	0.2828	0.4252	0.446
			MH1276	WA36	Sediment	1	14.19	0.7705	0.09744	0.3214	0.4232
517	2	10-Apr-12	ES0659	WA33/36	Biased/Systematic	24	11.649292	0.7707633	0.0001171	0.5520667	0.5704
			MH1281	WA36	Sediment	1	21.61	0.8152	0.03745	0.5686	0.6727
NPR	1	31-May-12	TU304	WA32	Systematic	18	11.473944	0.5690478	-0.0004078	0.3517944	0.4014111
	8		500SA-17	WA36	Characterization	6	9.787	0.6317333	0.0024228	0.3844667	0.4284
	10		MH1257	WA36	Sediment	1	11.13	1.026	0.06539	0.3858	0.3451
	11		MH1261	WA36	Sediment	1	11.23	0.8495	0.0002898	0.2319	0.6089
			MH1266	WA36	Sediment	1	12.11	0.4134	0.08382	0.3947	0.4069
			MH1267	WA36	Sediment	1	12.66	-0.04509	0.04731	0.3573	0.4896
NPR	7	4-Jun-12	MH1255	WA36	Sediment	1	17.78	0.9314	1.374	0.335	0.5439
			MH1258	WA36	Sediment	1	10.63	0.2356	0.06291	0.3154	0.4803
			MH1259	WA36	Sediment	1	11.98	0.7576	0.2475	0.4214	0.4241
			MH1260	WA36	Sediment	1	12.79	0.7244	0.01177	0.3565	0.432
		1	MH1262	WA36	Sediment	1	13.02	0.7402	0	0.2318	0.2836

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	with Final Systemati ouped by Collection		Sample	Sets Sumbitted to the on the Same Coll		tory		Average po	ilg for each Sa	mple Set	
Area	Survey Unit	Date	Other Sets Collected	Other Sets' Work Area(s)	Sample Type	# of Samples	K-40	Ra-226	Cs-137	Bi-214	Pb-214
707	23	31-Jul-12	C0733	Shaw Ship Sheilding	Biased/Systematic	33	12.933273	0.881003	0.0131708	0.5715273	0.6571333
			C0739	Shaw Ship Sheilding	Biased/Systematic	36	12.667528	0.8115389	0.0097074	0.5586833	0.6640972
			D0743	Shaw Ship Sheilding	Biased/Systematic	36	9.4631111	0.9326028	-0.0006936	0.7903333	0.8757722
			ERRU000159	WA36	Waste Bin	1	18.82	0.5284	0.002127	0.408	0.378
			500SA-15	WA36	Post-Remediation	3	8.001666667	0.484166667	0.000109267	0.3973	0.351333333
			506-ANC247	WA36	Ancillary	1	18.76	0.4323	0.469	0.181	0.2582
			707-22	WA21	Systematic	20	13.58942	0.492767	0.0487368	0.28277	0.32243
707	22	23-Aug-12									







11	48	Systematic	02NPR-S0011-F048-01	30-Oct-12	J Taylor/M Winder
11	49	Systematic	02NPR-S0011-F049-01	30-Oct-12	J Taylor/M Winder
11	50	Systematic	02NPR-S0011-F050-01	30-Oct-12	J Taylor/M Winder
11	51	Systematic	02NPR-S0011-F051-01	30-Oct-12	J Taylor/M Winder
11	52	Systematic	02NPR-S0011-F052-01	30-Oct-12	J Taylor/M Winder
11	53	Systematic	02NPR-S0011-F053-01	30-Oct-12	J Taylor/M Winder
11	54	Systematic	02NPR-S0011-F054-01	30-Oct-12	J Taylor/M Winder
11	55	Systematic	02NPR-S0011-F055-01	30-Oct-12	J Taylor/M Winder
11	56	Systematic	02NPR-S0011-F056-01	30-Oct-12	J Taylor/M Winder
11	57	Systematic	02NPR-S0011-F057-01	30-Oct-12	J Taylor/M Winder
11	58	Systematic	02NPR-S0011-F058-01	30-Oct-12	J Taylor/M Winder
11	59	Systematic	02NPR-S0011-F059-01	30-Oct-12	J Taylor/M Winder
11	60	Systematic	02NPR-S0011-F060-01	30-Oct-12	J Taylor/M Winder
_11	61	Systematic	02NPR-S0011-F061-01	30-Oct-12	J Taylor/M Winder
11	62	Systematic	02NPR-S0011-F062-01	30-Oct-12	J Taylor/M Winder
11	63	Systematic	02NPR-S0011-F063-01	30-Oct-12	J Taylor/M Winder
11	64	Systematic	02NPR-S0011-F064-01	30-Oct-12	J Taylor/M Winder
11	65	Systematic	02NPR-S0011-F065-01	30-Oct-12	J Taylor/M Winder
11	66	Systematic	02NPR-S0011-F066-01	30-Oct-12	J Taylor/M Winder
	11 11 11 11 11 11 11 11 11 11 11 11 11	11 49 11 50 11 51 11 52 11 53 11 54 11 55 11 56 11 57 11 58 11 59 11 60 11 61 11 62 11 63 11 64 11 65	11 49 Systematic 11 50 Systematic 11 51 Systematic 11 52 Systematic 11 53 Systematic 11 54 Systematic 11 55 Systematic 11 56 Systematic 11 57 Systematic 11 59 Systematic 11 60 Systematic 11 61 Systematic 11 62 Systematic 11 63 Systematic 11 64 Systematic 11 65 Systematic	11 49 Systematic 02NPR-S0011-F049-01 11 50 Systematic 02NPR-S0011-F050-01 11 51 Systematic 02NPR-S0011-F051-01 11 52 Systematic 02NPR-S0011-F052-01 11 53 Systematic 02NPR-S0011-F053-01 11 54 Systematic 02NPR-S0011-F054-01 11 55 Systematic 02NPR-S0011-F055-01 11 56 Systematic 02NPR-S0011-F056-01 11 57 Systematic 02NPR-S0011-F058-01 11 58 Systematic 02NPR-S0011-F058-01 11 59 Systematic 02NPR-S0011-F060-01 11 60 Systematic 02NPR-S0011-F060-01 11 61 Systematic 02NPR-S0011-F062-01 11 62 Systematic 02NPR-S0011-F063-01 11 63 Systematic 02NPR-S0011-F063-01 11 64 Systematic 02NPR-S0011-F064-01 11 65 <td< td=""><td>11 49 Systematic 02NPR-S0011-F049-01 30-Oct-12 11 50 Systematic 02NPR-S0011-F050-01 30-Oct-12 11 51 Systematic 02NPR-S0011-F051-01 30-Oct-12 11 52 Systematic 02NPR-S0011-F052-01 30-Oct-12 11 53 Systematic 02NPR-S0011-F053-01 30-Oct-12 11 54 Systematic 02NPR-S0011-F054-01 30-Oct-12 11 55 Systematic 02NPR-S0011-F055-01 30-Oct-12 11 56 Systematic 02NPR-S0011-F056-01 30-Oct-12 11 57 Systematic 02NPR-S0011-F058-01 30-Oct-12 11 58 Systematic 02NPR-S0011-F059-01 30-Oct-12 11 59 Systematic 02NPR-S0011-F060-01 30-Oct-12 11 61 Systematic 02NPR-S0011-F061-01 30-Oct-12 11 62 Systematic 02NPR-S0011-F062-01 30-Oct-12 11 64 Systematic</td></td<>	11 49 Systematic 02NPR-S0011-F049-01 30-Oct-12 11 50 Systematic 02NPR-S0011-F050-01 30-Oct-12 11 51 Systematic 02NPR-S0011-F051-01 30-Oct-12 11 52 Systematic 02NPR-S0011-F052-01 30-Oct-12 11 53 Systematic 02NPR-S0011-F053-01 30-Oct-12 11 54 Systematic 02NPR-S0011-F054-01 30-Oct-12 11 55 Systematic 02NPR-S0011-F055-01 30-Oct-12 11 56 Systematic 02NPR-S0011-F056-01 30-Oct-12 11 57 Systematic 02NPR-S0011-F058-01 30-Oct-12 11 58 Systematic 02NPR-S0011-F059-01 30-Oct-12 11 59 Systematic 02NPR-S0011-F060-01 30-Oct-12 11 61 Systematic 02NPR-S0011-F061-01 30-Oct-12 11 62 Systematic 02NPR-S0011-F062-01 30-Oct-12 11 64 Systematic

12.14	0.2555	0.005146	0.4333	0.409
9.099	0.25	-0.001031	0.1485	0.4051
16.97	0.6765	-0.004835	0.5016	0.5628
13.41	1.043	0.007397	0.4005	0.4926
8.479	-0.03818	0.008437	0.3315	0.2834
7.729	0.7058	-0.001774	0.2842	0.2897
7.245	0.3539	0.005391	0.1395	0.3227
8.09	0.7814	-0.00497	0.2325	0.4314
7.659	0.4121	-0.0006429	0.1912	0.2862
7.622	0.7293	-0.008737	0.297	0.1676
13.23	0.8045	0.009238	0.4011	0.3905
10.76	0.7667	0.01065	0.1496	0.3622
5.482	0.2624	0.01339	0.101	0.2512
9.871	0.731	0.002692	0.3444	0.3717
7.096	0.4656	0.004129	0.3798	0.356
7.92	0.8474	0	0.2265	0.1184
7.835	0.3401	-0.007842	0.1825	0.1433
10.78	0.8868	0	0.379	0.4846
4.761	0.2135	-0.001662	0.004619	0.04502

0.53
0.363
0.616
0.604
0.384
0.377
0.176
0.304
0.34
0.388
0.632
0.388
0.263
0.445
0.34
0.475
0.272
0.432
0.154

Highlighted Activities: K-40 ≤ 3; Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.375; Pb-214 ≥ 1.375 (pCi/g)

Area	Unit	Data Set	Sample Range	Statistic	K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
500SA	3	Complete	All	Mean	12.99621222	0.683494889	0.007534049	0.433250444	0.505590889	9.444722222	0.441138889	0.013055806	0.441138889	0.480694444
	•	о о р. о о		Median	11.265	0.56505	0.0048795	0.37125	0.4509	9.77	0.429	0.01385	0.429	0.466
				Std Dev	8.661011939	0.587010798	0.010593207	0.316484894	0.315435349	2.323737736	0.1417878	0.01510582	0.1417878	0.148926409
		Systematic 1	1 to 36	Mean	18.34113333	1.058046944	0.007472389	0.623861667	0.695954722					
				Median	17.215	0.89045	0.0048795	0.57345	0.61215					
				Std Dev	9.405391318	0.631667105	0.01119883	0.31345425	0.320588433					
		Post-Remediation	45 to 54	Mean	1.53473	0.146627	0.00142287	0.100825	0.144147					
				Median	1.334	0.1534	0.00137105	0.081605	0.1736					
				Std Dev	0.894199973	0.180318641	0.004391025	0.073026849	0.077950462					
									·					
		Final	55 to 90	Mean		0.493355556	0.010753289	0.330174167		9.444722222	0.441138889	0.013055806	0.441138889	0.480694444
				Median Std Dev	11.125 2.773371798	0.5283 0.287946637	0.008198 0.010840423	0.3466	0.4111 0.106635045	9.77 2.323737736	0.429 0.1417878	0.01385 0.01510582	0.429 0.1417878	0.466 0.148926409
				Stu Dev	2.773371790	0.20/94003/	0.010040423	0.14323/118	0.100033043	2.323/3//30	0.1417070	0.01510562	0.1417070	0.146920409
						<u> </u>								
517	2	Complete	All	Mean	13.17619124	0.795367711	0.00248355	0.528548928	0.589911753	1.778222222	0.174277778	-0.000627175	0.174277778	0.217305556
				Median	12.86	0.71005	0	0.47265	0.5335	1.755	0.1835	-0.00002415	0.1835	0.2165
				St Dev	7.900874391	0.530329346	0.011383402	0.354917922	0.373026445	0.599023401	0.086877668	0.010680146	0.086877668	0.055414196
		Customatic 4	0.4- 42	Maan	12 51000000	O DAAGEEEE	0.004310383	0.671380556	0.765404667					
		Systematic 1	8 to 43	Mean Median	13.51088889 13.84	0.944655556 0.7566	0.004310363	0.5733	0.765191667 0.6431					
				St Dev	2.551120838		0.010320138	0.434768916	0.432966776					
				3,23.		1 3.333333	0.0.0000.00		01.02000					
		Systematic 2	72 to 107	Mean	16.92733333	0.899296833	-0.000484341	0.603491667	0.675962222					
				Median	15.825	0.9365	0	0.6573	0.7456					
				St Dev	7.614985924	0.4771655	0.007251223	0.295380036	0.296029064					
		Final	123 to 158	Mean	1.722169444	0.269878889	0.000792768	0.123669222	0.155880833	1.778222222	0.174277778	-0.000627175	0.174277778	0.217305556
		1 11161	120 10 100	Median	1.65	0.24775	0.000702700	0.10835	0.175	1.755	0.1835	-0.000027170	0.1835	0.2165
				St Dev	0.535136812		0.005301076	0.064529456		0.599023401	0.086877668	0.010680146		0.055414196
		Re-Sample	159 to 194	Mean	15.16527778	0.899355556	0.004106869	0.573577778	0.622864722					
				Median	14.775	0.9075	0.0029095 0.009821969	0.54765	0.61495					
				St Dev	5.131540852	0.33000226	0.009621969	0.182264282	0.220439492					
			.											***
707	3, 9, 16, 17,	Complete	All	Mean	9.917060235	0.420103201	0.071225819	0.326519576	0.340693748	4.95204	0.25607735	-0.002100692	0.25607735	0.2986835
	22 & 23	·		Median	10.28	0.3903	0.001496	0.2936	0.3209	4.115	0.2305	0	0.2305	0.2845
				St Dev	7.0392389	0.343818321	0.706283537	0.259790831	0.242107678	4.073409389	0.200109168	0.015150163	0.200109168	0.201847031
	•	Custometic 4	4 4 - 20	Maan	14 40704	0.500004	0.060440045	0.540000	0.4727475					
	3	Systematic 1	1 to 20	Mean Median	14.40704 14.1315	0.568364 0.5538	0.069449945 0.0669285	0.519629 0.536935	0.4737175 0.486285					
				St Dev	2.805919125		0.049181746	0.095507452	0.480263					
						3.2.000.120	3.0.0.017.10	3,000001102	, 0.0001101					
	3	Final	37 to 56	Mean	3.557435	0.14545	-0.000482466	0.1162504	0.162627	3.101	0.18709	-0.005641005	0.18709	0.26892
				Median	3.0195	0.14165	0	0.09564	0.15725	2.605	0.1535	-0.0026325	0.1535	0.26
				St Dev	2.175527811	0.235232117	0.004671429	0.06602057	0.098493481	1.735614255	0.170000941	0.012743543	0.170000941	0.166640131
	9	Sustamatia 1	1 to 20	Mean	15.01239	0.4954676	0.047459605	0.5980035	0.5560145					
	J	Systematic 1	1 10 20	IVICALI	10.01238	U.7304010	U.UTI 11000	L 0.0300030	U.JJUU140					

Area	Unit	Data Set	Sample Range	Statistic	K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
				Median	15	0.53643	0.02443	0.63671	0.516465					
				St Dev	4.511639684	0.397558208	0.059939792	0.179112329	0.183841768					
							T	1					T	
	9	Systematic 2	35 to 54	Mean	10.4735	0.55018	0.004387815	0.357355	0.399475	9.41 9.42	0.4935 0.499	-0.0015218	0.4935 0.499	0.55315
				Median St Dev	10.525 0.842408358	0.59675 0.243276184	0.0007595 0.007372801	0.3603 0.068699318	0.3979 0.061780817	1.076514845		-0.000253 0.016073802	0.082457325	0.5495 0.093446452
				0.50	0.012100000	0.240270104	0.007072001	1 0.000000010	1 0.001700017	1.070014040	0.002 107 020	0.010070002	0.002101020	0.000110102
	9	Final	59 to 78	Mean	0.80598	0.0821818	0.002953173	0.0103724	0.01332565	0.8422	0.0312185	0.004558085	0.0312185	0.07594
				Median	0.7873	0.07004	0.00031775	0.000159	0.0095755	0.8195	0.0284	0.0005998	0.0284	0.0601
				St Dev	0.370837433	0.12690064	0.005311997	0.025365832	0.024290664	0.381097667	0.04244255	0.008670193	0.04244255	0.070134483
	16	Systematic 1	1 to 20	Mean	16.53146	0.4312124	0.11944257	0.5599355	0.5771585					
	10	Oystemans 1	11020	Median	17.7565	0.407135	0.0561225	0.585795	0.6163					
				St Dev	4.937521896	0.348833698	0.125423115	0.15631116	0.172124674					
			45.4					0.400.405		T				
	16	Systematic 2	45 to 64	Mean Median	6.1335 6.224	0.29803085 0.2762	-0.001129609 -0.0001685	0.199165 0.18325	0.241125 0.23555	5.445 5.32	0.30034 0.332	-0.00908415 -0.004775	0.30034 0.332	0.33565 0.34
				St Dev	0.822958559	0.2762	0.004818448	0.094391911	0.067840679	1.439672843	0.332	0.018025837	0.127956836	0.054134603
				3,20,	0.02200000	0.100100070	0.001.01.0		1 0.0070 10070		1 0.12.000000	1	1	
	16	Final	67 to 86	Mean	2.67289	0.239761	-0.001695986	0.0709005	0.10363939	2.5165	0.186695	-0.000203	0.186695	0.227785
				Median	2.312	0.2077	-0.00015125	0.059805	0.085545	2.325	0.175	0.0000835	0.175	0.214
				St Dev	1.845684479	0.199687099	0.003635007	0.077647226	0.086212283	1.207501052	0.125009484	0.014080454	0.125009484	0.162522178
	17	Systematic 1	1 to 20	Mean	17.577175	0.6082214	0.04481731	0.678111	0.633214					
	••	Oy 0.0	20	Median	16.6795	0.66646	0.0228405	0.694535	0.63188					
				St Dev	3.991650744	0.383009878	0.092839642	0.140039871	0.151929846					
	47	Overhametic 2	40 40 64	Maan	40.0006	0.5040755	0.004566704	0.4446445	0.40700	40.450	0.5046		0.5046	0.5607
	17	Systematic 2	42 to 61	Mean Median	10.8236 11.555	0.5840755 0.5763	0.001566781 -0.000035095	0.4116445 0.44895	0.40788 0.4183	10.158 10.35	0.5246 0.5185	-0.0036223 -0.000123	0.5246 0.5185	0.5607 0.5675
				St Dev	1.837615486	0.249125984	0.010096762	0.102429562	0.084663182	1.591227927	0.106308588	0.016346124	0.106308588	0.102179975
	17	Final	64 to 83	Mean	5.4452	0.426523	-0.002282165	0.1902325	0.201465	5.0495	0.33565	-0.0026422	0.33565	0.32665
				Median St Dev	5.662	0.4495 0.199430312	0.003943233	0.18225 0.067966393	0.1895	5.135 1.055992798	0.328 0.05715839	0 0.01242772	0.328 0.05715839	0.363 0.087722214
				St Dev	0.681996188	0.199430312	0.003943233	0.007900393	0.052572139	1.000992790	0.00710008	0.01242112	1 0.007 10008	0.007722214
	22	Systematic 1	12 to 31	Mean	11.32665	0.3207665	0.002395868	0.22566	0.2696915	11.109	0.359075	0.005568	0.359075	0.428135
		-		Median	12.145	0.3039	0.0013769	0.20705	0.26675	11.6	0.3525	0.00549	0.3525	0.3805
				St Dev	3.81930118	0.337238273	0.005674834	0.118721525	0.128643382	3.275831594	0.18548828	0.010877014	0.18548828	0.178968613
	22	Systematic 2	44 to 63	Mean	13.58942	0.492767	0.048736795	0.28277	0.32243					
	22	Systematic 2		Median	13.8	0.52605	0.0076575	0.3155	0.3408					
				St Dev	4.512351224		0.08533449	0.123132753						
						·		T					T	
	22	Final	81 to 100	Mean	0.72487	0.1317289	-0.000109735	0.03271915	0.06452715	0.6553	0.062253	-0.0026707 -0.000555	0.062253 0.0525	0.07712 0.0708
				Median St Dev	0.6407 0.277554964	0.1092 0.156532532	0.00411817	0.03361 0.027989508	0.0547 0.047841254	0.6695 0.4363766	0.0525	0.012910224	0.0525	0.0708
				J. DC1	U.E. 1 007007	0.100002002	0.00711017	1 0.02. 000000	1 0.011011207		1 0.01200210		_ C.C. LOOL! O	, 0,00000100
	23	Final	5 to 24	Mean	1.198355	0.11314844	0.000850075	0.05109795	0.08229095	1.2339	0.080352	-0.00574785	0.080352	0.132785
				Median	1.1985	0.14105	0	0.05451	0.061315	1.15	0.0836	-0.00195	0.0836	0.1455
				St Dev	0.429891765	0.119948732	0.004007958	0.03319066	0.062561069	0.370434581	0.071982784	0.021997823	0.071982784	0.069812895
				· · · · · · · · · · · · · · · · · · ·										

Area	Unit	Data Set	Comple Bongs	Statistic	K-40	Ra-226	Cs-137	D: 244	Dh 244	W 40	D. 226	Co 427	D: 044	Db 244
Alea	Offic	Data Set	Sample Range	Stausuc	K-40	M9-220	CS-13/	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	2	Complete	All	Mean	4.832349375	0.284894188	0.036972417	0.15204949	0.191149063	1.99791	0.164315	0.009205	0.164315	0.177375
				Median	1.759	0.1518	0.014825	0.06285	0.092485	0.5455	0.1155	0.006995	0.1155	0.1545
				St Dev	6.470395115	0.354335897	0.058046458	0.178157354	0.220255234	4.511833978	0.153500222	0.019313455	0.153500222	0.153698923
		Final	3 to 6, 8 to 22, 28	Mean	2.2353375	0.14748225	0.006272035	0.085874275	0.0871569	1.99791	0.164315	0.009205	0.164315	0.177375
				Median	0.6083	0.08749	0.00155675	0.044975	0.046845	0.5455	0.1155	0.006995	0.1155	0.1545
				St Dev	5.170182115	0.270457092	0.01218073	0.143044955	0.146200278	4.511833978	0.153500222	0.019313455	0.153500222	0.153698923
		Re-Sample	29 to 48	Mean	8.3348	0.491335	0.073295	0.24809745	0.346294					
		•		Median	6.6205	0.3887	0.047095	0.2131	0.3778					
				St Dev	5.95749911	0.346753637	0.066398078	0.178480113	0.196450403					
	- 	<u> </u>												
NPR	1,7,8,10, 11	Complete	All	Mean	8.893148387	0.47411751	0.009063723	0.277411966	0.333935663	3.190442623	0.22128041	0.006707113	0.22128041	0.262368852
				Median	8.129	0.4327	0.0008782	0.2328	0.2898	1.265	0.174	0.0007595	0.174	0.223
				St Dev	7.287537043	0.354480482	0.026223499	0.215415134	0.233266162	5.088031729	0.192796459	0.024562022	0.192796459	0.180645603
	4	Systematic 1	3 to 22	Mean	17.0906	0.85831	0.00756183	0.641415	0.70298					
		•		Median	16.57	0.90495	0.0063085	0.6356	0.65775					
				St Dev	4.369138039	0.354320258	0.009852577	0.17340317	0.187682068					
	1	Final	28 to 47	Mean	0.85799	0.12554275	-0.001074045	0.04713675	0.0780465	0.80125	0.19355	-0.001177295	0.19355	0.224975
	·	1	2010 1.	Median	0.83125	0.1296	0	0.053185	0.07633	0.6945	0.186	0	0.186	0.225
				St Dev	0.313446045	0.162197413	0.004430395	0.038646799	0.036326346	0.413031651	0.12775026	0.009401146	0.12775026	0.104094218
	7	Systematic 1	3 to 22	Mean	13.3008	0.59536	0.017158965	0.36853	0.40228					
	•	Gyotomatio :	0.011	Median	12.53	0.61885	0.0033885	0.3574	0.37925					
				St Dev	5.429274595	0.253239869	0.055899494	0.142301363	0.134485071					
	7	Final	30 to 49	Mean	1.55229	0.2316825	-0.000954859	0.08981005	0.1449855	1.3079	0.1428375	0.0025354	0.1428375	0.18336
	•	1 11141	00 10 40	Median	1.594	0.22905	0.000004000	0.095455	0.15245	1.29	0.1425	0.0020004	0.1425	0.1905
				St Dev	0.396872439	0.117115601	0.00519961	0.05286266	0.054596236	0.654080705	0.074360107	0.012927058	0.074360107	0.077879478
	8	Systematic 1	3 to 22	Mean	12.4212	0.690445	0.01473632	0.35388	0.423435					
	U	Cystematic 1	0 10 22	Median	10.255	0.6288	0.004496	0.3518	0.3931					
				St Dev	5.562581553	0.30770083	0.024439136	0.166494013	0.155004143					
	8	Final	32 to 51	Mean	1.256515	0.181917	0.000195555	0.094562275	0.1363755	1.28345	0.185493	-0.00046025	0.185493	0.22657
	·	i iiidi	02 10 0 1	Median	1.2105	0.2159	0.00010000	0.08632	0.1266	1.315	0.1945	0.0003315	0.1945	0.24
				St Dev	0.35970205	0.180818237	0.005601427	0.053432509	0.061597534		0.099646868	0.009738174	0.099646868	0.059652795
	10	Systematic 1	3 to 22	Mean	13,19005	0.5334918	0.012328835	0.343065	0.3960175					
	10	Systematic 1	3 10 22	Median	11.005	0.6374	0.004808	0.343003	0.3900173					
				St Dev	6,549418909	0.322351298	0.030365556	0.147309368	0.180605378					
	40	Einel	27 to 46	Maca	0.90772	0.17755740	0.001245225	0.0756	0.000102	0.60005	0.11000	0.006570	0.44000	0.405005
	10	Final	21 10 40	Mean Median	0.89772 0.8814	0.17755712 0.1572	-0.001345335 0	0.0756 0.076115	0.099193 0.08133	0.69825 0.639	0.11966 0.09635	0.006579 0.00578	0.11966 0.09635	0.165935 0.179
				St Dev	0.268089835		0.004198854	0.035706923	0.052523436	0.472509746	0.113456513	0.012045636	0.113456513	0.065036389
	40	De Camala	47 44 66	Mass	0.40505	0.550442	0.004054047	0.040500	T 0.00000					_
	10	Re-Sample	47 to 66	Mean	9.49525	0.552443	0.004254845	0.248538	0.296093					

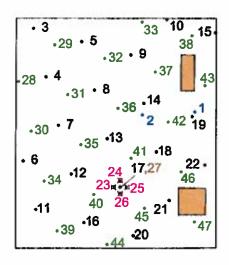
Area	Unit	Data Set	Sample Range	Statistic	K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
Area	Onit	Data Set	Sample Kange	Median	7.935	0.56805	0.0001571	0.20295	0.26675	100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· · · · · · · · · · · · · · · · · · ·		
				St Dev	3.848433624	0.269549217	0.007289299	0.180587115						
				0. 50.	0.010100021	0.2000 102 11	1 0.001200200	0.100001110	1 0110100011					
	11	Systematic 1	3 to 22	Mean	14.8632	0.714425	0.00863232	0.443785	0.536735					
		•,•••••		Median	13.805	0.7658	0.006891	0.4393	0.54035					
				St Dev	6.156507525	0.405537893	0.014944824	0.183401576	0.199241124					
												·		
	11	Final	27 to 46	Mean	1.270505	0.1801841	0.003229867	0.0763634	0.1118205	1.27285	0.13367	-7.8965E-05	0.13367	0.18146
				Median	1.171	0.16805	0.0022585	0.07029	0.094115	1.275	0.1065	-0.00018	0.1065	0.186
				St Dev	0.432154281	0.164396121	0.004786649	0.051002067	0.063558188	0.226200022	0.08604735	0.008966016	0.08604735	0.062496386
					<u> </u>			1 0 07700505	0.004500					
	11	Re-Sample	47 to 66	Mean	9.5119	0.556221	0.002026605	0.27739595	0.331596					
				Median	8.2845	0.6568	0.001346	0.2906	0.3591					
				St Dev	3.112835632	0.285573093	0.006180683	0.132274691	0.13562092					
				-70	=	-=						Au_70		
DOT	220 242 202	Complete	Ali	Mean	3.459828283	0.366421687	0.001730108	0.222309455	0.263823141	1.590833333	0.133612778	0.001480389	0.133612778	0.166498148
PCT	238, 242, 302	Complete	All	Median	1.938	0.300421007	0.000730108	0.08348	0.1399	1.31	0.10012770	0.001400000	0.117	0.1605
				Std Dev	3.881205814	0.442967201	0.006487747	0.298279301	0.329325746	2.307362259	0.104705267	0.012691031	0.104705267	0.093391288
				Old Dev	0.001200014	0.772007201	0.000401141	0.200270001	0.020020110	2.007.002200	1 0		1	
	238	Final	18 to 35	Mean	1.656866667	0.124800389	0.000601176	0.087622778	0.091095111	1.398333333	0.095282778	9.74444E-05	0.095282778	0.169894444
	200			Median	1.0895	0.07737	0	0.062975	0.07641	1.265	0.06205	0	0.06205	0.173
				Std Dev	1.267960694	0.175890168	0.004857032	0.084866456	0.072426088	0.872057203	0.078996017	0.012881196	0.078996017	0.099076681
	242	Systematic 1	1 to 18	Mean	4.607388889	0.584277778	9.89722E-05	0.345758333	0.43609					
				Median	4.059	0.4747	0	0.23895	0.2699					
				Std Dev	3.033270112	0.515503994	0.00765547	0.353343342	0.393992175					
					0.04504464	-	1 0 004==0055	0.40070	0.407000044	0.004700000	L 0 402000000	T 0.00000E	0.183822222	0.178655556
	242	Final	25 to 42	Mean	2.947811111	0.279011111	0.001770693	0.10079	0.137298611	2.394722222	0.183822222	0.000225 -0.000905	0.183822222	0.178655556
				Median	2.054	0.2103	0.000107735	0.080685	0.11086	1.445 3.75491986	0.186 0.125274032	0.013894564	0.125274032	0.107817341
				Std Dev	4.518513828	0.236820781	0.004293728	0.109627057	0.124389674	3./3491986	0.1252/4032	1 0.013034304	1 0.120214032	0.10/01/341
	202	Einel	5 to 22	Moon	1.303322222	0.091635	0.002380146	0.038648667	0.079100611	0.979444444	0.121733333	0.004118722	0.121733333	0.150944444
	302	Final	5 to 22	Mean Median	1.093	0.03334	0.002360146	0.036046607	0.067425	0.93	0.0991	0.004110722	0.0991	0.147
				Std Dev	0.6547399	0.192329797	0.007056113	0.039964363		0.786718966	0.0887192	0.011492919	0.0887192	0.072981377
				GIG DEV	0.0041000	0.102020101	1 0.007000110	1 0.00000-000	3.001000010	0.7 007 70000	1 0.000, 102	1	1	, 2.220.0.7

												2.223			PI 044
	Area	Unit	Data Set	Sample Range	Statistic	K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
	517	2	Complete	All	Mean	12.72298165	0.771674278	0.002113679	0.51828919	0.582403481	1.778222222	0.174277778	-0.000627175	0.174277778	0.217305556
59	317	2	Complete	All	Median	12.73	0.6547	0.002110070	0.44545	0.49415	1.755	0.1835	-0.00002415	0.1835	0.2165
					St Dev	8.351843243	0.564285036	0.011706693	0.383241661	0.399895927	0.599023401	0.086877668	0.010680146		0.055414196
			Systematic 1	8 to 43	Mean	13.51088889		0.004310383		0.765191667					
					Median	13.84	0.7566	0.0041285	0.5733	0.6431					
					St Dev	2.551120838	0.668385796	0.010320138	0.434768916	0.432966776					
		20	Systematic 2	72 to 107	Mean	16.92733333	0.899296833	-0.000484341	0.603491667	0.675962222					
			Oystematic 2	12 10 101	Median	15.825	0.9365	0	0.6573	0.7456					
					St Dev	7.614985924	0.4771655	0.007251223	0.295380036						
														I	
			Final	123 to 158	Mean	1.722169444	0.269878889	0.000792768	0.123669222		1.778222222	0.174277778		0.174277778	
					Median	1.65	0.24775	0.005301076	0.10835 0.064529456	0.175	1.755 0.599023401	0.1835 0.086877668	-0.00002415 0.010680146	0.1835 0.086877668	0.2165 0.055414196
					St Dev	0.535136812	0.179550587	1_0.005301076	0.004029400	0.059808911	0.599025401	0.000077000	0.010000140	0.000077000	0.000414190
					# 					, <u>, , , , , , , , , , , , , , , , , , </u>	ii ii				
	70 7	3, 9, 16, 17,	Complete	All	Mean	9.917060235	0.420103201	0.071225819	0.326519576	0.340693748	4.95204	0.25607735	-0.002100692	0.25607735	0.2986835
		22 & 23			Median	10.28	0.3903	0.001496	0.2936	0.3209	4.115	0.2305	0	0.2305	0.2845
					St Dev	7.0392389	0.343818321	0.706283537	0.259790831	0.242107678	4.073409389	0.200109168	0.015150163	0.200109168	0.201847031
				4.4		14.40704	0.500004	L 0 000440045	I 0.540000	0.4707475					
		3	Systematic 1	1 to 20	Mean	14.40704 14.1315	0.568364 0.5538	0.069449945 0.0669285	0.519629 0.536935	0.4737175 0.486285					
					Median St Dev	2.805919125	0.276582125	0.049181746	0.095507452						
					Of Dev	2.000010120	0.270002120	1 0.040101140	0.000001102	0.0007107					
		3	Final	37 to 56	Mean	3.557435	0.14545	-0.000482466	0.1162504	0.162627	3.101	0.18709	-0.005641005	0.18709	0.26892
					Median	3.0195	0.14165	0	0.09564	0.15725	2.605	0.1535	-0.0026325	0.1535	0.26
					St Dev	2.175527811	0.235232117	0.004671429	0.06602057	0.098493481	1.735614255	0.170000941	0.012743543	0.170000941	0.166640131
		•	Ovetemetic 4	1 to 20	Mean	15.01239	0.4954676	0.047459605	0.5980035	0.5560145					
		9	Systematic 1	1 10 20	Median	15.01239	0.53643	0.047433003	0.63671	0.516465					
					St Dev	4.511639684	0.397558208	0.059939792	0.179112329						
											pr 1		· · · · · · · · · · · · · · · · · · ·		
			Systematic 2	35 to 54	Mean	10.4735	0.55018	0.004387815	0.357355	0.399475	9.41	0.4935	-0.0015218	0.4935	0.55315
					Median	10.525	0.59675	0.0007595	0.3603	0.3979	9.42	0.499	-0.000253	0.499 0.082457325	0.5495 0.093446452
					St Dev	0.842408358	0.243276184	0.007372801	0.068699318	0.061780817	1.076514845	0.082457325	0.016073802	0.00240/320	0.033440402
		9	Final	59 to 78	Mean	0.80598	0.0821818	0.002953173	0.0103724	0.01332565	0.8422	0.0312185	0.004558085	0.0312185	0.07594
		J	1 11100	33.13.13	Median	0.7873	0.07004	0.00031775	0.000159	0.0095755	0.8195	0.0284	0.0005998	0.0284	0.0601
					St Dev	0.370837433	0.12690064	0.005311997	0.025365832	0.024290664	0.381097667	0.04244255	0.008670193	0.04244255	0.070134483
							1 0 1010101	0.44044057	0.5500055	0.5774505					
		16	Systematic 1	1 to 20	Mean	16.53146	0.4312124	0.11944257 0.0561225	0.5599355 0.585795	0.5771585 0.6163					
					Median St Dev	17.7565 4.937521896	0.407135 0.348833698		0.563795						
					Of DEA	T.301021030	1 0.0-10000000	1 0.120720110	1 0.10001110	V.112127017					
		16	Systematic 2	45 to 64	Mean	6.1335	0.29803085	-0.001129609	0.199165	0.241125	5.445	0.30034	-0.00908415	0.30034	0.33565
		· -	•		Median	6.224	0.2762	-0.0001685	0.18325	0.23555	5.32	0.332	-0.004775	0.332	0.34
					St Dev	0.822958559	0.199463576	0.004818448	0.094391911	0.067840679	1.439672843	0.127956836	0.018025837	0.127956836	0.054134603
		46	P 11	674.00	Maaa	0.67000	1 0 220764	0.001605000	0.0700005	0.10363939	2.5165	0.186695	-0.000203	0.186695	0.227785
		16	Final	67 to 86	Mean Median	2.67289 2.312	0.239761 0.2077	-0.001695986 -0.00015125	0.0709005 0.059805	0.10363939	2.325	0.175	0.0000835	0.186693	0.221765
					Median	2.312	1 0.2011	1 -0.00010120	0.003000	U.UUUUTU	2.020	3.170	1 0.000000	1 0.110	V.EIT.

Area	Unit	Data Set	Sample Range	Statistic	K-40 Ra-226 Cs-137 Bi-214 Pb-214 K-40 Ra-226 Cs-137 Bi-214 Pb-214
	.03.5=01==2.5	5,072		St Dev	1.845684479 0.199687099 0.003635007 0.077647226 0.086212283 1.207501052 0.125009484 0.014080454 0.125009484 0.162522178
	17	Systematic 1	1 to 20	Mean	17.577175
				Median St Dev	16.6795 0.66646 0.0228405 0.694535 0.63188 3.991650744 0.383009878 0.092839642 0.140039871 0.151929846
	17	Systematic 2	42 to 61	Mean	10.8236 0.5840755 0.001566781 0.4116445 0.40788 10.158 0.5246 -0.0036223 0.5246 0.5607
	••			Median	11.555
				St Dev	1.837615486 0.249125984 0.010096762 0.102429562 0.084663182 1.591227927 0.106308588 0.016346124 0.106308588 0.102179975
	17	Final	64 to 83	Mean Median	5.4452 0.426523 -0.002282165 0.1902325 0.201465 5.0495 0.33565 -0.0026422 0.33565 0.32665 5.662 0.4495 0 0.1825 0.1895 5.135 0.328 0 0.328 0.363
				St Dev	0.681996188 0.199430312 0.003943233 0.067966393 0.052572139 1.055992798 0.05715839 0.01242772 0.05715839 0.087722214
	22	Systematic 1	12 to 31	Mean	11.32665
				Median St Dev	12.145 0.3039 0.0013769 0.20705 0.26675 11.6 0.3525 0.00549 0.3525 0.3805 3.81930118 0.337238273 0.005674834 0.118721525 0.128643382 3.275831594 0.18548828 0.010877014 0.18548828 0.178968613
	22	Systematic 2	44 to 63	Mean	13.58942
	22	Systematic 2	44 10 03	Median	13.8 0.52605 0.0076575 0.3155 0.3408
				St Dev	4.512351224 0.325582053 0.08533449 0.123132753 0.144389405
	22	Final	81 to 100	Mean Median	0.72487 0.1317289 -0.000109735 0.03271915 0.06452715 0.6553 0.062253 -0.0026707 0.062253 0.07712 0.6407 0.1092 0 0.03361 0.0547 0.6695 0.0525 -0.000555 0.0525 0.0708
				St Dev	0.277554964 0.156532532 0.00411817 0.027989508 0.047841254 0.4363766 0.07258278 0.012910224 0.07258278 0.038658105
	23	Final	5 to 24	Mean	1.198355 0.11314844 0.000850075 0.05109795 0.08229095 1.2339 0.080352 -0.00574785 0.080352 0.132785
				Median St Dev	1.1985 0.14105 0 0.05451 0.061315 1.15 0.0836 -0.00195 0.0836 0.1455 0.429891765 0.119948732 0.004007958 0.03319066 0.062561069 0.370434581 0.071982784 0.021997823 0.071982784 0.069812895
980	2	Complete	All	Mean	2.330598929 0.137436464 0.011027714 0.083443804 0.08033125 1.99791 0.164315 0.009205 0.164315 0.177375
				Median St Dev	0.3767 0.046955 0.00084835 0.03339 0.028625 0.5455 0.1155 0.006995 0.1155 0.153500222 5.685492048 0.282536723 0.032976886 0.145327371 0.163476508 4.511833978 0.153500222 0.019313455 0.153500222 0.153608923
		Final	3 to 6, 8 to 22, 28	Mean	2.2353375 0.14748225 0.006272035 0.085874275 0.0871569 1.99791 0.164315 0.009205 0.164315 0.177375
		гшал	3 (0 0, 0 (0 22, 20	Median	0.6083 0.08749 0.00155675 0.044975 0.046845 0.5455 0.1155 0.006995 0.1155 0.1545
				St Dev	5.170182115 0.270457092 0.01218073 0.143044955 0.146200278 4.511833978 0.153500222 0.019313455 0.153500222 0.153698923
NPR	1,7,8,10, 11	Complete	All	Mean	8.790984937 0.460692491 0.01005502 0.279829538 0.337298201 3.190442623 0.22128041 0.006707113 0.22128041 0.262368852
• • •	1,1,0,10, 11	oompio.o	<i>.</i>	Median	8.211 0.4059 0.0008793 0.2472 0.2896 1.265 0.174 0.0007595 0.174 0.223
				St Dev	
	1	Systematic 1	3 to 22	Mean Median	17.0906
				St Dev	4.369138039 0.354320258 0.009852577 0.17340317 0.187682068
	1	Final	28 to 47	Mean	0.85799 0.12554275 -0.001074045 0.04713675 0.0780465 0.80125 0.19355 -0.001177295 0.19355 0.224975
				Median St Dev	0.83125 0.1296 0 0.053185 0.07633 0.6945 0.186 0 0.186 0.225 0.313446045 0.162197413 0.004430395 0.038646799 0.036326346 0.413031651 0.12775026 0.009401146 0.12775026 0.104094218

Area	Unit	Data Set	Sample Range	Statistic	K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
	7	Systematic 1	3 to 22	Mean Median	13.3008 12.53	0.59536 0.61885	0.017158965 0.0033885	0.36853 0.3574	0.40228 0.37925					
				St Dev	5.429274595		0.055899494	0.142301363						
	7	Final	30 to 49	Mean Median	1.55229 1.594	0.2316825 0.22905	-0.000954859 0	0.08981005 0.095455	0.1449855 0.15245	1.3079 1.29	0.1428375 0.1425	0.0025354	0.1428375 0.1425	0.18336 0.1905
				St Dev	0.396872439		0.00519961	0.05286266	0.054596236	0.654080705	0.074360107	0.012927058	0.074360107	
	8	Systematic 1	3 to 22	Mean Median St Dev	12.4212 10.255 5.562581553	0.690445 0.6288 0.30770083	0.01473632 0.004496 0.024439136	0.35388 0.3518 0.166494013	0.423435 0.3931 0.155004143					
	8	Final	32 to 51	Mean	1.256515	0.181917	0.000195555	0.094562275	0.1363755	1.28345	0.185493	-0.00046025	0.185493	0.22657
				Median St Dev	1.2105 0.35970205	0.2159 0.180818237	0.005601427	0.08632 0.053432509	0.1266 0.061597534	1.315 0.341740972	0.1945 0.099646868	0.0003315 0.009738174	0.1945 0.099646868	0.24 0.059652795
	10	Systematic 1	3 to 22	Mean Median	13.19005	0.5334918 0.6374	0.012328835	0.343065 0.3225	0.3960175 0.4038					
	40	Final	97 Ap 46	St Dev	0.89772	0.322351298	-0.001345335	0.147309368	0.180605378	0 60935	0.11966	0.000570	0.11966	0.165935
	10	Final	27 to 46	Mean Median St Dev	0.8814 0.268089835	0.17755712 0.1572 0.146443925	0 0.004198854	0.076115 0.035706923	0.09193 0.08133 0.052523436	0.69825 0.639 0.472509746	0.11966 0.09635 0.113456513	0.006579 0.00578 0.012045636	0.09635 0.113456513	0.179
	11	Systematic 1	3 to 22	Mean Median	14.8632 13.805	0.714425 0.7658	0.00863232 0.006891	0.443785 0.4393	0.536735 0.54035					
				St Dev	6.156507525	0.405537893	0.014944824	0.183401576	0.199241124				···	¥ = 1 · · · · · · · · · · · · · · · · · ·
	11	Final	27 to 46	Mean Median St Dev	1.270505 1.171 0.432154281	0.1801841 0.16805 0.164396121	0.003229867 0.0022585 0.004786649	0.0763634 0.07029 0.051002067	0.1118205 0.094115 0.063558188	1.27285 1.275 0.226200022	0.13367 0.1065 0.08604735	-7.8965E-05 -0.00018 0.008966016	0.13367 0.1065 0.08604735	0.18146 0.186 0.062496386





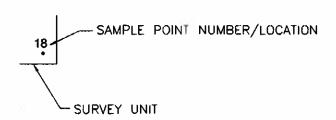
SU-01

CLASS 1 803.22 m² (8645.87 ft²)

LEGEND:

- 1 BIASED 1-2
- 3 SYSTEMATIC 1 3-22
- 23 CHARACTERIZATION 23-26
- 27 POST—REMEDIATION 27
- 100
- 28 SYSTEMATIC 2 28-47
- CONCRETE

AREAS PREVIOUSLY REMEDIATED



RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 01



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Count Time: 1 min Site Area: NPR Survey Unit: 1 Class: 1 Area: 803.22 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	3/12/2012 9:48	7456	6386	1070	600-BKGDS1B	6765	
2	3/12/2012 9:50	7272	6386	886	600-BKGDS1B	6765	
3	3/12/2012 9:51	5200	6386	-1186	600-BKGDS1B	6765	
4	3/12/2012 9:53	5643	6386	-743	600-BKGDS1B	6765	
5	3/12/2012 9:54	5791	6386	-595	600-BKGDS1B	6765	
6	3/12/2012 9:56	6150	6386	-236	600-BKGDS1B	6765	
7	3/12/2012 9:57	6468	6386	82	600-BKGDS1B	6765	AT MONTHER TOWN
8	3/12/2012 9:58	6168	6386	-218	600-BKGDS1B	6765	
9	3/12/2012 10:00	6440	6386	54	600-BKGDS1B	6765	
10	3/12/2012 10:01	5154	6386	-1232	600-BKGDS1B	6765	
11	3/12/2012 10:02	6487	6386	101	600-BKGDS1B	6765	
12	3/12/2012 10:04	6224	6386	-162	600-BKGDS1B	6765	
13	3/12/2012 10:05	5744	6386	-642	600-BKGDS1B	6765	
14	3/12/2012 10:06	7297	6386	911	600-BKGDS1B	6765	
15	3/12/2012 10:07	6897	6386	511	600-BKGDS1B	6765	
16	3/12/2012 10:09	4843	6386	-1543	600-BKGDS1B	6765	
17	3/12/2012 10:10	7133	6386	747	600-BKGD\$1B	6765	
18	3/12/2012 10:11	6783	6386	397	600-BKGDS1B	6765	
19	3/12/2012 10:12	7107	6386	721	600-BKGDS1B	6765	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
20	3/12/2012 10:14	4194	6386	-2192	600-BKGDS1B	6765	
21	3/12/2012 10:15	5443	6386	-943	600-BKGDS1B	6765	
22	3/12/2012 10:17	5629	6386	-757	600-BKGD\$1B	6765	
23	4/20/2012 14:01	7699	6386	1313	600-BKGDS1B	6765	
24	4/20/2012 14:03	7840	6386	1454	600-BKGDS1B	6765	
25	4/20/2012 14:04	7494	6386	1108	600-BKGDS1B	6765	
26	4/20/2012 14:05	6346	6386	-40	600-BKGDS1B	6765	
27	5/1/2 <mark>01</mark> 2 15:26	4909	6386	-1477	600-BKGDS1B	6765	
28	5/31/2012 14:52	4428	6808	-2380	630-BKGDS1B	8141	
29	5/31/2012 14:54	4992	6808	-1816	630-BKGDS1B	8141	
30	5/31/2012 14:55	6096	6808	-712	630-BKGDS1B	8141	r _i csas;
31	5/31/2012 14:56	5708	6808	-1100	630-BKGDS1B	8141	W 1
32	5/31/2012 14:57	5835	6808	-973	630-BKGDS1B	8141	



TETRATECH ECLING. Gamma Direct Measurement Report Sun Francisco, CA

Site Area: NPR Survey Unit: 1 Class: 1 Area: 803.22 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
33	5/31/2012 14:58	4732	6808	-2076	630-BKGDS1B	8141	
34	5/31/2012 14:59	5221	6808	-1587	630-BKGDS1B	8141	
35	5/31/2012 15:01	4957	6808	-1851	630-BKGDS1B	8141	
36	5/31/2012 15:02	5430	6808	-1378	630-BKGDS1B	8141	
37	5/31/2012 15:03	4940	6808	-1868	630-BKGDS1B	8141	
38	5/31/2012 15:04	5218	6808	-1590	630-BKGDS1B	8141	
39	5/31/2012 15:05	4364	68 <mark>0</mark> 8	-2444	630-BKGDS1B	8141	
40	5/31/2012 15:06	4760	6808	-2048	630-BKGDS1B	8141	
41	5/31/2012 15:07	4832	6808	-1976	630-BKGDS1B	8141	
42	5/31/2012 15:08	6228	6808	-580	630-BKGDS1B	8141	
43	5/31/2012 15:10	5888	6808	-920	630-BKGDS1B	8141	
44	5/31/2012 15:11	4719	6808	-2089	630-BKGDS1B	8141	
45	5/31/2012 15:12	5024	6808	-1784	630-BKGDS1B	8141	
46	5/31/2012 15:13	5375	6808	-1433	630-BKGDS1B	8141	
47	5/31/2012 15:14	4200	6808	-2608	630-BKGDS1B	8141	10.0 13.0

Net Gamma cpm Summary Min: -2608

oummary Av

Avg: -762

Max: 1454

St Dev: 1130

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements



TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02300

Project Information Section SAMPLE ID ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS 内払む 耳内 H <u>_</u> Э **50 10 0** 1 CETSASTEC **S** 2 \square **>** $\mathbf{\Sigma}$ Ž \square $\mathbf{\Sigma}$ TYPE ŝ જ က ည S က် ŝ ŝ ည S ည જ 949-756-7592 4044-0002 Containers LEVEL Ş Project Chemist Phone Project Number Airbill Number PO Number WAZZOIZ COSZD 3122012 O810 3172012 08/15 3112/2012 |09,25 3112/2012 | 08/30 31222012 CSHD 3122012 08CO 3122012 0805 312R012 | CS 25 31722012 0845 31222012 095D 3122012 | 0855 TIME DATE Sampler Name ROBERSON Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 02NPR-S0001-F001-01 02NPR-S0001-F002-01 02NPR-S0001-F003-01 02NPR-S0001-F004-01 02NPR-S0001-F005-01 02NPR-S0001-F006-01 02NPR-S0001-F007-01 02NPR-S0001-F012-01 02NPR-S0001-F008-01 02NPR-S0001-F009-01 02NPR-S0001-F010-01 02NPR-S0001-F011-01 SAMPLE_ID

21.21	Date -12 -12 Received by: (signature)	LABORATORY INSTRUCTIONS COMMENTS
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TETRATECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02301

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS A H P E A _ 3 X 6 0 CEFSAZZAG Σ Σ Σ \square **>** <u>></u> [2] 2 2 TYPE ŝ ည જ S ည ည ည ည ည ည 949-756-7592 4044-0002 Containerr LEVEL ¥. X Project Chemist Phone Project Number Airbill Number PO Number 31222012 0940 31212012 C1920 311212012 DG 30 31122012 0945 3122212 0900 3122012 10915 3122012 0935 31222012 0950 3122012 10955 31222012 0935 TIME DATE Sampler Name KAN ROBERSON Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 02NPR-S0001-F013-01 02NPR-S0001-F022-01 02NPR-S0001-F014-01 02NPR-S0001-F015-01 02NPR-S0001-F016-01 02NPR-S0001-F017-01 02NPR-S0001-F018-01 02NPR-S0001-F019-01 02NPR-S0001-F021-01 02NPR-S0001-F020-01 SAMPLE_ID

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Company	Time	Сотрану	1.10

TETRATECH EC. INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02384

Project Name Radiological Site Survey	rvey	PO Number	ber	N/A		. J 4	SE	A L		LABORATORY NAMB	Project Information
Project Location HUNTERS POINT	F	Project Number	lumber	4044-0002	23	45,	60	A H		ONSITE - Curtis & Tompkins, LTD.	Section
Sampler Name Joe County of the		Airbill Number	umber	N/A		7,2	4 pa 4	<		LABORATORY ID	
Project Chemist LISA BIENKOWSKI	SKI	Project C	Project Chemist Phone	e 949-756-7592	7592	, 4 9	. 8 U				
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	+ <+	-		COMMENTS	LOCATION	SAMPLEID
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02NPR-S0007-F023-01	4/20/2012	1110	1		81	N					
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02NPR-S0010-F023-01	4/20/2012	1125	-		S1	K					
02NPR-S0010-F024-01	4/20/2012	1130	145 •		S1	<u>K</u>					
02NPR-S0010-F025-01	4/20/2012 1135	1135	-		S1	<u>></u>					

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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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Project Name	¥	PO Number	8				r	5		L		LABORATORY NAME		
Radiological Site Survey	уву	S			N/A			_	2				Project Information	ion
Project Location HUNTERS POINT	Ţ	Project Number	umbe		4044-0002	22				E E	3	ONSITE - Curtis & Tompkins, LTD.		
Sampler Name		Airbill Number	mber		N/A	· = 1	П	< ∞ ₽	**	<u>. </u>		LABORATORAM		2
Projeći Chemist LISA BIENKOWSKI	SKI	Project Chemis Phone	cemis	Phone	949-756-7592	7592		CE		5	2.		.	
SAMPLE_ID	DATE	TIME	Con	duers	Confainers LEVEL	TYPE	F < F	3 pd			COMMENTS	LOCATION	SAMPLEID	
02NPR-S0001-F027-01	5/1/2012 1530	1230				S1		<u> </u>	片		*	2		
02NPR-S0008-F030-01	5/1/2012 1520	1870	3			ડ્ય		2	片	_				
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02NPR-S0010-F026-01	5/1/2012 1515	1515			a	81		[2]	片					
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1230 Columbia St, Suite 750 TETRATECH EC, INC.

San Diego, CA 92101

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Project Information Section SAMPLE ID ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS Y I L I I _ S 12 5 0 ロ内間内の中間口 \square 2 [] **\S** 2 \square 2 2 **-<** TYPE ည ည Project Chemist Phone 949-756-7592 છ ર ည છ S ည S S છ ટ 4044-0002 Containers LEVEL ٤ Project Number Airbill Number PO Number 531/2012 | 0800 5/31/2012 | **0805** TIME 5/31/2012 |0810 5/3/12012 0815 5/31/2012 DB30 53112012 0820 513112012 0825 5/31/2012 | 0840 5/31/2012 084S 531/2012 0850 5,31/2012 0835 Si31/2012 0885 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Sampler Name Project Location HUNTERS POINT 02NPR-S0001-F028-01 02NPR-S0001-F029-01 02NPR-S0001-F030-01 02NPR-S0001-F031-01 02NPR-S0001-F032-01 02NPR-S0001-F033-01 02NPR-S0001-F034-01 02NPR-S0001-F035-01 02NPR-S0001-F036-01 02NPR-S0001-F037-01 02NPR-S0001-F038-01 02NPR-S0001-F039-01 SAMPLE ID

	Date S-31-12 Receive	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS SAMPE	SING COMMENTS
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Сотрану	Time	Сотрапу		
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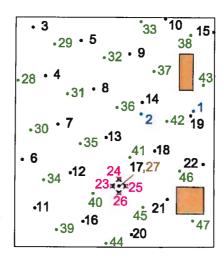
TETRA TECH EC, INC. 1239 Columbia St, Suite 750 San Diego, CA 92101

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Project Location HUNTERS POINT		Project Number	umber	4044-0002		Ī	ZZ:			ONSITE - Curtis &	Froject Information
Sampler Name		Airbill Number		A/N		T	₹ (5	<		LABORATORY ID	
Project Chemist LISA BIENKOWSKI	₹	Project Cl.	Project Chemist Phone	949-756-7592	592	T	a e o				
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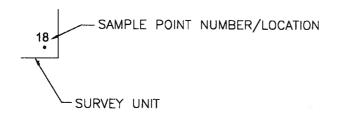
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LEGEND:

- BIASED 1-2
- SYSTEMATIC 1 3-22
- CHARACTERIZATION 23-26
- POST-REMEDIATION 27
- 28 SYSTEMATIC 2 28-47
- CONCRETE



AREAS PREVIOUSLY REMEDIATED



RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 01



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750

SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

Cc:

Subject:

From: Chiu, George

Sent: Monday, July 16, 2012 10:25 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin;

Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller,

Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall,

Paul; Weingarz, Richard; White, Bryan HPS Data - North Pier Survey Unit 01

Attachments: 02NPR-S0001 028 to 047 Off-Site Gamma.pdf; 02NPR-S0001 Pu and Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec, strontium, and plutonium results for the systematic samples from North Pier Survey Unit 01.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Wednesday, June 06, 2012 11:42 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 01

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from North Pier Survey Unit 01. Samples 29, 33, and 33DUP were recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

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From: Chiu, George

Sent: Friday, May 11, 2012 9:23 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 01

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 01.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Thursday, April 26, 2012 12:41 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 01

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 01.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist Office: 415,216.2745 | Cell: 714,270,4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services
00 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George

Sent: Sunday, March 18, 2012 12:18 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 01

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from North Pier Survey Unit 01. Samples 01, 08, 11, and 17 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 17 (1.733 pCi/g) due to radium-226 activity.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 12, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- Survey activities were performed by the HPNS Team on wooden railroad ties (Survey No. HPS-A-NPR-028); a total of 36 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 7,456 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 2 A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 7,396 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1 and 2.
- The RSOR provided the HPNS Team with survey results for the wooden railroad ties detailed in Survey No. HPS-A-NPR-027. Because no activity above the release criteria was identified, the 36 items were released for transfer to the recycling stockpiles.
- Surveyed and released metal rail track and wooden railroad ties (Survey Nos. HPS-A-NPR-026 and HPS-A-NPR-027) were transferred to the recycling bins and stockpiles near Building 411.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated completed in Trench Unit No. 194 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 12, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - One truckload of material was received for processing.
 - ES Units 0643 and 0646 were staged in the stockpile area pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 58
 - Swipe samples received for Protean counts: 108
 - Air samples received: 7
 - Samples analyzed by gamma spectroscopy: 48
 - Gamma spectroscopy samples recounted: 43
 - Protean swipe samples counted: 36
 - Protean air samples counted: 6
- A total of 267 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Portal Monitor Activities
 - A total of five empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of seven truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of nine incoming materials and equipment surveys were performed by the HPNS Team.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: March 12, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 518 Sites, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

• The HPNS Team provided the RASO with on-site analytical and survey results for the systematic samples collected from Class 1 Survey Unit 5. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.

Building 518 Site

• The HPNS Team performed survey activities for the former Building 518 foundation (located in the 500 Series Area Survey Unit 13). A total of 14 investigative gamma static measurements were logged with a maximum measurement of 6,882 cpm. In addition, 14 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

• The HPNS Team provided the RASO with analytical results for the characterization samples collected from Class 1 Survey Unit 1. Because no activity above the release criteria was identified, remediation and post-remediation sample collection will be performed.

500 Series Area

- The HPNS Team transferred approximately 12 cubic yards of excavated sand/soil material from Survey Unit 13 to RSY4 pending survey activities.
- Survey activities were performed by the HPNS Team on concrete debris generated during sand/soil removal in Survey Unit 13 (Survey Nos. HPS-A-500SA-040 and HPS-A-500SA-041); a total of 72 swipe samples were collected and submitted to the on-site laboratory for analysis.

- The RSOR provided the HPNS Team with survey results for the concrete debris generated during sand/soil removal in Survey Unit 13 and detailed in Survey No. HPS-A-500SA-039. Because no activity above the release criteria was identified, the 36 items were released for transfer to the recycling stockpiles near Building 411.
- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 3. Characterization and remediation will be performed due to the presence of ²²⁶Ra contamination as follows:
 - Sample Point 2 (07500SA-S0003-F002-01) with ²²⁶Ra at 1.774 pCi/g
 - Sample Point 3 (07500SA-S0003-F003-01) with ²²⁶Ra at 2.263 pCi/g
 - Sample Point 4 (07500SA-S0003-F004-01) with ²²⁶Ra at 1.846 pCi/g
 - Sample Point 6 (07500SA-S0003-F006-01) with ²²⁶Ra at 2.015 pCi/g
 - Sample Point 9 (07500SA-S0003-F009-01) with ²²⁶Ra at 1.664 pCi/g
 - Sample Point 11 (07500SA-S0003-F011-01) with ²²⁶Ra at 1.815 pCi/g
 - Sample Point 18 (07500SA-S0003-F018-01) with ²²⁶Ra at 1.806 pCi/g
 - Sample Point 24 (07500SA-S0003-F024-01) with ²²⁶Ra at 1.667 pCi/g
 - Sample Point 25 (07500SA-S0003-F025-01) with ²²⁶Ra at 2.01 pCi/g
 - Sample Point 27 (07500SA-S0003-F027-01) with ²²⁶Ra at 1.876 pCi/g
 - Sample Point 37 (07500SA-S0003-F037-01) with ²²⁶Ra at 1.849 pCi/g
- The HPNS Team provided the RASO with analytical results for the characterization samples collected from Class 1 Survey Unit 15. Because no activity above the release criteria was identified, remediation and post-remediation sample collection will be performed.
- A truckload of brush and vegetation were manually scanned followed by screening through the HPNS portal monitor with no alarms; the debris was staged near Building 411 pending off-site disposal or recycling.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with analytical results for the sediment sample collected from a pipe excavated from trench segment 07-E36-00-4M (07-PEPI-0027-01); no activity above the release criteria was identified.
- The HPNS Team issued Figures 1-1/3-1 for inclusion in the Internal Draft SUPRs for Trench Unit Nos. 225 and 228.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 20, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of four characterization gamma static measurements were logged with a maximum measurement of 7,840 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 7 A total of two characterization gamma static measurements were logged with a maximum measurement of 6,087 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of seven characterization gamma static measurements were logged with a maximum measurement of 6,911 cpm. In addition, seven soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A total of three characterization gamma static measurements were logged with a maximum measurement of 6,691 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 7, 8, and 10.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 8.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 156 cubic yards of soil from Work Area #32 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

_	02-C32-00-1D	45 linear feet completed
	02-C32-00-1E	6 linear feet completed
-	02-C32-00-1F	44 linear feet completed
_	02-C32-00-1J	12 linear feet completed

-	02-C32-00-1K	15 linear feet completed
_	02-C32-00-8D	62 linear feet completed
_	02-C32-00-8H	50 linear feet completed

- A total of 122 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 112 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH946, MH1334, MH1335 and MH1336 along and pipes excavated from trench segments 02-C32-00-1D, -1E, -1F, -1J, -1K, -8D, and -8H were placed on plastic pending further activities.
- The HPNS Team investigated the entire trench segment 02-C32-00-1F for the presence of pipe. Although depicted on the design drawing, no pipe was found during this investigation.
- A total of two sediment samples were collected from excavated Manholes MH946 (02-PCMH946-064-01) and MH1336 (02-PCMH1336-063-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for the excavated manholes and pipe sections detailed in Survey Nos. HPS-PCPIPE-041312-051, HPS-PCPIPE-041312-052, and HPS-PCPIPE-041612-053. Because no activity above the release criteria was identified, these 17 manholes and 11 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- Metal rail track encountered during Work Area #32 trench excavations was sized and staged for transfer to the recycling bins near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 20, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed towed array survey activities for ES Units 0686 and 0687 at RSY3.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 13 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Units 0645, 0678, 0681, 0683, 0692, and 0693.
 - ES Units 0659 and 0674 were staged in the stockpile area pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0675 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 36
 - Swipe samples received for Protean counts: 128
 - Air samples received: 10
 - Samples analyzed by gamma spectroscopy: 25
 - Gamma spectroscopy samples recounted: 5
 - Protean swipe samples counted: 40
 - Protean air samples counted: 10
- A total of 188 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 20, 2012 RMAC – CTO 07	
Report Date: Appl 20 2017 $\frac{1}{2}$	
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Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

• The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of two systematic gamma static measurements were logged with a maximum measurement of 5,807 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team exposed asphalt and continued soil grading and debris removal in preparation for towed array surveys in Class 2 Survey Unit 23.
- Asphalt covering Survey Unit 23 (near Building 505) was removed, scanned, and staged within the Class 2 survey boundaries; no elevated readings were identified during the scanning activities.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

7. 7. 1. 2012	RAD EMAC – CTO 002
Report Date: May 1, 2012	T RAD EMIAC – CTO 002
Report Date. Way 1, 2012	10 10 21/11 0 010 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A post-remediation gamma static measurement was logged at 4,909 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of two post-remediation gamma static measurements were logged with a maximum measurement of 7,183 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A post-remediation gamma static measurement was logged at 8,245 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 11 A total of three characterization gamma static measurements were logged with a maximum measurement of 5,612 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.
- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class1 Survey Unit 7. Because no activity above the release criteria was identified, remediation followed by post-remediation sample collection will be performed.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated manholes (Survey Nos. HPS-PCPIPE-121211-040 and HPS-PCPIPE-041612-053) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- Backfill activities were initiated for Trench Unit No. 236 by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

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Report Date: May 01, 2012	RMAC – CTO 004
Report Date. May 01, 2012	IWIAC CIO 004
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Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of six truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 11 truckloads of material were received for processing.
 - Issued drawing to identify biased and systematic sample collection locations for ES Unit 0685.
 - A total of 5 biased and 18 systematic soil samples were collected from ES Unit 0695 and submitted to the on-site laboratory for analysis.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the following:
 - On-site analytical data for ES Unit 0678 and a request for concurrence to stage the material pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.
 - On-site analytical data for ES Units 0683 and 0687 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

 Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 30
 - Swipe samples received for Protean counts: 152
 - Air samples received: 13
 - Samples analyzed by gamma spectroscopy: 87
 - Gamma spectroscopy samples recounted: 8
 - Protean swipe samples counted: 23
 - Protean air samples counted: 13
- A total of 323 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 119 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Parart Data: May 1, 2012	RMAC – CTO 07
Report Date: May 1, 2012	RIVIAC - CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Asphalt Grid A7 A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm².
 - Survey Unit 22 A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by postremediation sample collection activities will be performed.
- The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class I Survey Unit 14. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 7 (07500SA-S0014-F007-01) with ¹³⁷Cs at 0.1183 pCi/g Sample Point 17 (07500SA-S0014-F017-01) with ¹³⁷Cs at 0.2425 pCi/g

 - Sample Point 37 (07500SA-S0014-F037-01) with ¹³⁷Cs at 0.3768 pCi/g

• The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

_	07-E36-00-7F	133 linear feet completed
-	07-E36-00-7G	10 linear feet completed
_	07-E36-00-7H	12 linear feet completed
_	07-E36-00-7I	6 linear feet completed
	07-E36-00-8Y	25 linear feet completed

- A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.
- Excavated Manhole MH1244 was placed on plastic pending further activities.
- The HPNS Team provided the RASO with analytical results for the sediment samples collected from Manholes MH1302 and MH1303. Both manholes will be placed in LLRW bins for off-site disposal due to the presence of ¹³⁷Cs contamination as follows:
 - Manhole MH1302 (07-PEMH1302-013-01) with ¹³⁷Cs at 0.2161 pCi/g
 - Manhole MH1303 (07-PEMH1303-014-01) with ¹³⁷Cs at 0.1319 pCi/g
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 17 (0.2726 pCi/g).
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 31, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Buildings 211, 231, and 253; the North Pier; and Work Areas #32 through #35. Details of the work activities performed are provided below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,227 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,104 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,110 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 11 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,599 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 304 (associated with the North Pier) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were continued for Trench Unit No. 238 (associated with Buildings 211, 231, and 253) by the HPNS Team.
- The HPNS Team and the RASO concurred on backfilling of Trench Unit No. 242.
- The HPNS Team issued an updated Parcel C Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 302.
- Site restoration activities were performed by the HPNS Team over backfilled trench units in Work Area #33.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 31, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 13 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 13 truckloads of material were received for processing.
 - Began transfer of ES Unit 0700 to the stockpile area.
- The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0686 and a request for concurrence to use the materials as trench backfill.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- After evaluating the data, the RASO concurred with the following:
 - Transferring ES Unit 0678 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.
 - Reuse of ES Units 0658, 0685, 0687, and 0688 as trench backfill.

Basewide Support

• One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 140
 - Swipe samples received for Protean counts: 151
 - Air samples received: 13

- Samples analyzed by gamma spectroscopy: 76
- Gamma spectroscopy samples recounted: 13
- Protean swipe samples counted: 20
- Protean air samples counted: 16
- A total of 227 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 71 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 520 Site

• The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class I Survey Unit 4. Characterization and remediation will be performed due to the presence of ⁹⁰Sr contamination at Sample Point 61 (0.365 pCi/g).

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming survey activities in Class 2 Survey Units 22 and 23.
- The HPNS Team performed Class 1 survey activities for Survey Unit 17. A total of six characterization gamma static measurements were logged with a maximum measurement of 6,340 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the ¹³⁷Cs contaminated samples collected from Class 1 Survey Unit 17; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 17.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36
and transferred the material to both RSY3 and RSY4 for processing. Excavation
activities were performed for the following trench segments:

-	07-E36-00-4D	10 linear feet completed
-	07-E36-00-4E	51 linear feet completed
-	07-E36-00-4F	5 linear feet completed
-	07-E36-00-4G	27 linear feet completed
-	07-E36-38-1U	35 linear feet completed

-	07-E36-38-1V	39 linear feet completed
-	07-E36-38-1W	38 linear feet completed
-	07-E36-38-2B	17 linear feet completed
-	07-E36-38-4A	9 linear feet completed
-	07-E36-38-5A	10 linear feet completed

- A total of 241 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Excavated Manholes MH1257, MH1261, MH1266, and MH1267 were placed on plastic pending further activities.
- The HPNS Team investigated trench segment 07-E36-38-1U for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.
- A total of four sediment samples were collected from excavated Manholes MH1257, MH1261, MH1266, and MH1267 (MH0016 through MH0019) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Survey activities were performed by the HPNS Team for pipe sections removed from trench segment 07-E36-39-1R (Survey No. HPS-PEPIPE-053112-048). During the survey activities, a total of six swipe samples were collected and submitted to the on-site laboratory for analysis.
- Survey activities were performed by the HPNS Team on concrete pipe bedding material removed from Trench Unit No. 307 (Survey No. HPS-A-TU307-001). During the survey activities, a total of eight swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 301.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report

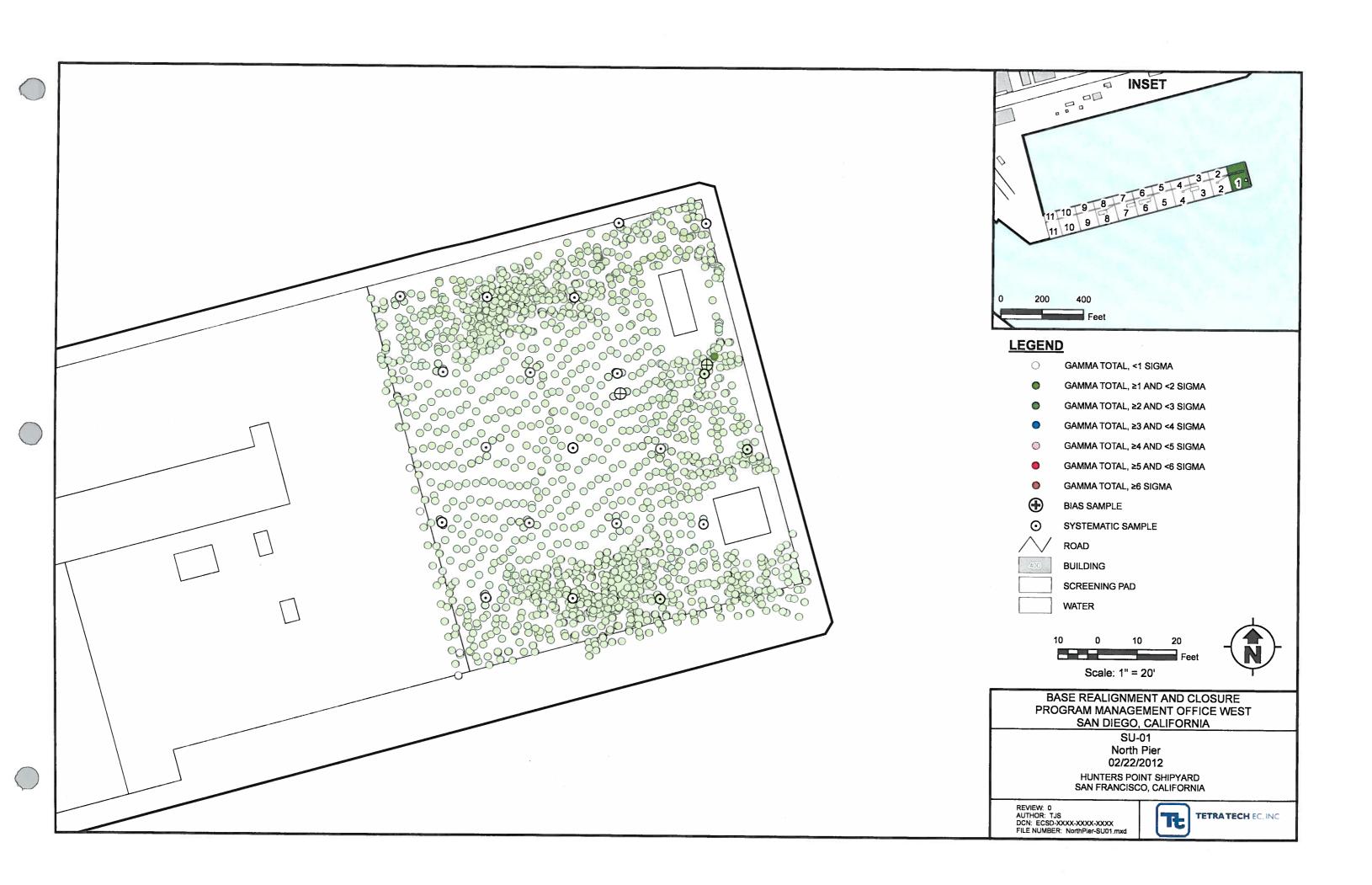
ALBERT	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Type	ID	Collected	Technician
NPR	1	1	Biased	02NPR-S0001-F001-01	12-Mar-12	Ray Roberson
NPR	1	2	Biased	02NPR-S0001-F002-01	12-Mar-12	Ray Roberson
NPR	1	3	Systematic	02NPR-S0001-F003-01	12-Mar-12	Ray Roberson
NPR	1	4	Systematic	02NPR-S0001-F004-01	12-Mar-12	Ray Roberson
NPR	1	5	Systematic	02NPR-S0001-F005-01	12-Mar-12	Ray Roberson
NPR	1	6	Systematic	02NPR-S0001-F006-01	12-Mar-12	Ray Roberson
NPR	1	7	Systematic	02NPR-S0001-F007-01	12-Mar-12	Ray Roberson
NPR	1	8	Systematic	02NPR-S0001-F008-01	12-Mar-12	Ray Roberson
NPR	1	9	Systematic	02NPR-S0001-F009-01	12-Mar-12	Ray Roberson
NPR	1	10	Systematic	02NPR-S0001-F010-01	12-Mar-12	Ray Roberson
NPR	1	11	Systematic	02NPR-S0001-F011-01	12-Mar-12	Ray Roberson
NPR	1	12	Systematic	02NPR-S0001-F012-01	12-Mar-12	Ray Roberson
NPR	1	13	Systematic	02NPR-S0001-F013-01	12-Mar-12	Ray Roberson
NPR	1	14	Systematic	02NPR-S0001-F014-01	12-Mar-12	Ray Roberson
NPR	1	15	Systematic	02NPR-S0001-F015-01	12-Mar-12	Ray Roberson
NPR	1	16	Systematic	02NPR-S0001-F016-01	12-Mar-12	Ray Roberson
NPR	1	17	Systematic	02NPR-S0001-F017-01	12-Mar-12	Ray Roberson
NPR	1	18	Systematic	02NPR-S0001-F018-01	12-Mar-12	Ray Roberson
NPR	1	19	Systematic	02NPR-S0001-F019-01	12-Mar-12	Ray Roberson
NPR	1	20	Systematic	02NPR-S0001-F020-01	12-Mar-12	Ray Roberson
NPR	1 :	21	Systematic	02NPR-S0001-F021-01	12-Mar-12	Ray Roberson
NPR	1	22	Systematic	02NPR-S0001-F022-01	12-Mar-12	Ray Roberson
NPR	1	23	Characterization	02NPR-S0001-F023-01	20-Apr-12	Joe Cunningham
NPR	1	24	Characterization	02NPR-S0001-F024-01	20-Apr-12	Joe Cunningham
NPR	1	25	Characterization	02NPR-S0001-F025-01	20-Apr-12	Joe Cunningham
NPR	1	26	Characterization	02NPR-S0001-F026-01	20-Apr-12	Joe Cunningham
NPR	1	27	Post-Remediation	02NPR-S0001-F027-01	01-May-12	Ray Roberson
NPR	1	28	Systematic	02NPR-S0001-F028-01	31-May-12	Ray Roberson
NPR	1	29	Systematic	02NPR-S0001-F029-01	31-May-12	Ray Roberson
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NPR	1	32	Systematic	02NPR-S0001-F032-01	31-May-12	Ray Roberson
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NPR	11	37	Systematic	02NPR-S0001-F037-01	31-May-12	Ray Roberson
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NPR	1	44	Systematic	02NPR-S0001-F044-01	31-May-12	Ray Roberson
NPR	1	45	Systematic	02NPR-S0001-F045-01	31-May-12	Ray Roberson
NPR	1	46	Systematic	02NPR-S0001-F046-01	31-May-12	Ray Roberson
NPR	_ 1	47	Systematic	02NPR-S0001-F047-01	31-May-12	Ray Roberson

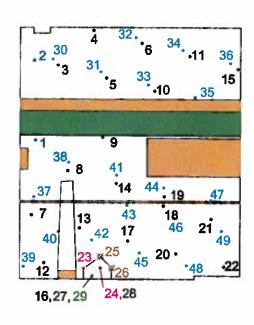
On-Site Laboratory (pCi/g)				
K-40	Ra-226	Cs-137	Bi-214	Pb-214
19.96	0.7947	0.002155	0.7368	0.9664
24.59	0.7248	0.001884	0.6621	0.7068
16.11	0.4684	0.01759	0.5191	0.5651
17.03	0.6062	-0.003201	0.2581	0.5437
24.05	0.9352	0.01714	0.5566	0.6519
12.95	0.4327	0	0.6043	0.5663
17.52	0.8395	0.02346	0.6461	0.6105
19.97	1.076	0.005379	0.9277	1.029
20.39	0.8747	0	0.5708	0.6631
21.94	0.6621	0.01632	0.6301	0.6339
13.45	1.015	0.002805	0.6732	0.7337
12.68	0.8268	0.0005424	0.7971	0.7826
15.3	1.037	0.01031	0.7513	0.7032
24.65	1.195	-0.006789	0.5994	0.6146
22.08	1.261	0.01603	0.596	0.7978
18.09	0.5341	0.007238	0.6411	0.6978
21.58	1.733	-0.002161	1.035	1.284
13.13	0.9494	0	0.7172	0.7386
14.23	0.9426	0.0001202	0.7795	0.7926
8.662	0.5098	0.008013	0.3953	0.3855
14.28	0.1567	0.00801	0.4635	0.6133
13.72	1,111	0.03043	0.6669	0.6524
11.34	0.5413	0.01377	0.3548	0.5122
14.11	0.6765	-0.001807	0.6377	0.7881
14.4	1.067	-0.0138	0.6211	0.7014
12.12	0.9123	-0.005844	0.4609	0.6027
10.01	0.5203	0	0.4381	0.4978
0.5955	0.2128	0	0	0.08584
0.7668	0.2668	0	0	0.05145
0.9455	-0.008865	0	0.07812	-0.0127
0.4548	-0.02182	-0.0008709	0.02045	0.08867
0.6058	0.1511	-0.01155	0.04581	0.05904
0.8327	0.3042	0.0007696	0.07488	0.05932
1.434	0.5699	-0.0006029	0.0416	0.06921
0.6848	0.09719	0	-0.03271	0.02707
1.228	0.1553	0.01029	0.06768	0.07872
0.3449	-0.05534	0.0000226	0	0.09024
1.02	0.1019	-0.008089	0.04228	0.0759
1.16	0.1347	-0.003694	0.06066	0.05237
0.8298	0	0.001043	0.03774	0.06048
0.6604	0.1806	0	0.06056	0.07676
0.5083	-0.1306	-0.007731	0.07382	0.07326
0.5767	0.1846	-0.003175	0.09672	0.1287
1.296	0.1245	0.0004911	0.07711	0.1323
1.331	-0.02846	-0.0005054	0.004655	0.1333
0.9901	-0.03055	0.002121	0.07236	0.1103
0.8947	0.3029	0	0.121	0.1207
0.8947	0.3029	U	0.121	0.120/

		-Site Laboratory		
K-40	Ra-226	Cs-137	Bi-214	Pb-214
0.978	0.0445	0.00297	0.0445	0.148
0.978 0.648	0.0445 0.17	0.00297 0.00328	0.0445	0.148 0.119
0.648	0.17	0.00328	0.17	0.119
	0.17 0.11	 	0.17 0.11	0.119 0.146
0.648 0.294	0.17	0.00328 -0.0125	0.17 0.11 0.0165	0.119 0.146 0.187
0.648 0.294 0.523	0.17 0.11 0.0165	0.00328 -0.0125 0	0.17 0.11	0.119 0.146 0.187 0.264
0.648 0.294 0.523 1.08	0.17 0.11 0.0165 0.202	0.00328 -0.0125 0 0.0000361	0.17 0.11 0.0165 0.202	0.119 0.146 0.187
0.648 0.294 0.523 1.08 0.834	0.17 0.11 0.0165 0.202 0.02	0.00328 -0.0125 0 0.0000361 0	0.17 0.11 0.0165 0.202 0.02	0.119 0.146 0.187 0.264 0.0788
0.648 0.294 0.523 1.08 0.834 0.619	0.17 0.11 0.0165 0.202 0.02 0.163	0.00328 -0.0125 0 0.0000361 0	0.17 0.11 0.0165 0.202 0.02 0.163	0.119 0.146 0.187 0.264 0.0788 0.156
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478	0.00328 -0.0125 0 0.0000361 0 0 0.0218	0.17 0.11 0.0165 0.202 0.02 0.163 0.084	0.119 0.146 0.187 0.264 0.0788 0.156 0.234
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229 -0.00477	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229 -0.00477 -0.000656	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372 0.534 0.219 0.687	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131	0.00328 -0.0125 0 0.0000361 0 0.0218 -0.0167 0.00229 -0.00477 -0.000656 -0.0224	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128 0.28
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372 0.534 0.219	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131 0.218	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229 -0.00477 -0.000656 -0.0224 0.000384	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128 0.28 0.0947
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372 0.534 0.219 0.687 0.702 1.54	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229 -0.00477 -0.000656 -0.0224 0.000384 -0.0109	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128 0.28 0.0947 0.318
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372 0.534 0.219 0.687 0.702	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131 0.218	0.00328 -0.0125 0 0.0000361 0 0 0.0218 -0.0167 0.00229 -0.00477 -0.000656 -0.0224 0.000384 -0.0109 0	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131 0.218	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128 0.28 0.0947 0.318 0.34
0.648 0.294 0.523 1.08 0.834 0.619 0.301 0.553 0.892 0.989 0.372 0.534 0.219 0.687 0.702 1.54	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131 0.218 0.207	0.00328 -0.0125 0 0.0000361 0 0.00218 -0.0167 0.00229 -0.00477 -0.000656 -0.0224 0.000384 -0.0109 0	0.17 0.11 0.0165 0.202 0.02 0.163 0.084 0.214 0.478 0.123 0.296 0.274 0.11 0.131 0.218 0.207	0.119 0.146 0.187 0.264 0.0788 0.156 0.234 0.293 0.513 0.227 0.128 0.28 0.0947 0.318 0.34 0.164

 NPR
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 Systematic
 02NPR-S0001-F047-01
 31-May-12
 Ray Roberson
 0.8947

 Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.485; Pb-214 ≥ 1.485 (pCi/g)
 1.485 (pCi/g)

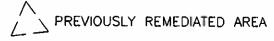


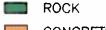


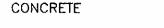
SU-07 CLASS 1 771.47 m² (8304.08 ft²)

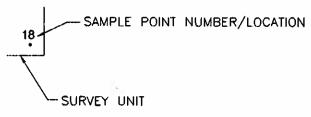
LEGEND:

- 1 BIASED 1-2
- 3 SYSTEMATIC 1 3-22
- 23 CHARACTERIZATION 23-24
- 25 CHARACTERIZATION 2 25-26
- 27 POST—REMEDIATION 27—28
- 29 POST-REMEDIATION 2 29
- 30 SYSTEMATIC 2 30-49









RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 07



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Site Area: NPR Survey Unit: 7 Class: 1 Area: 771.47 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	СРМ	СРМ		Level (com)	
1	3/19/2012 10:06	5024	6386	-1362	600-BKGDS1B	6765	
2	3/19/2012 10:08	5287	6386	-1099	600-BKGDS1B	6765 .	
3	3/19/2012 10:09	5256	6386	-1130	600-BKGDS1B	6765	
4	3/19/2012 10:10	5382	6386	-1004	600-BKGDS1B	6765	
5	3/19/2012 10:11	5465	6386	-921	600-BKGDS1B	6765	
6	3/19/2012 10:12	4579	6386	-1807	600-BKGDS18	6765	
7	3/19/2012 10:14	3561	6386	-2825	600-BKGDS1B	6765	
8	3/19/2012 10:15	5025	6386	-1361	600-BKGDS1B	6765	
9	3/19/2012 10:16	3488	6386	-2898	600-BKGDS1B	6765	
10	3/19/2012 10:18	4380	6386	-2006	600-BKGDS1B	6765	
11	3/19/2012 10:19	5129	6386	-1257	600-BKGDS1B	6765	
12	3/19/2012 10:20	5147	6386	-1239	600-BKGDS1B	6765	
13	3/19/2012 10:21	3374	6386	-3012	600-BKGD\$1B	6765	
14	3/19/2012 10:23	5262	6386	-1124	600-BKGDS1B	6765	
15	3/19/2012 10:24	5221	6386	-1165	600-BKGDS1B	6765	
16	3/19/2012 10:27	5423	6386	-963	600-BKGDS1B	6765	
17	3/19/2012 10:28	3520	6386	-2866	600-BKGDS1B	6765	
18	3/19/2012 10:29	3776	6386	-2610	600-BKGDS1B	6765	
19	3/19/2012 10:30	4087	6386	-2299	600-BKGDS1B	6765	THE STATE OF THE S
20	3/19/2012 11:37	3788	6386	-2598	600-BKGDS1B	6765	
21	3/19/2012 11:38	3931	6386	-2455	600-BKGDS1B	6765	
22	3/19/2012 11:39	5080	6386	-1306	600-BKGDS1B	6765	
23	4/20/2012 13:54	6085	6386	-301	600-BKGDS1B	6765	
24	4/20/2012 13:55	6087	6386	-299	600-BKGDS1B	6765	
25	4/27/2012 10:03	6022	6386	-364	600-BKGDS1B	6765	
26	4/27/2012 10:05	5432	6386	- 9 54	600-BKGDS1B	6765	
27	5/7/2012 10:51	7807	6386	1421	600-BKGDS1B	6765	
28	5/7/2012 11:14	7800	6386	1414	600-BKGDS1B	6765	
29	5/24/2012 15:40	4072	6066	-1994	630-BKGDS1A	7326	
30	6/4/2012 13:28	3781	6808	-3027	630-BKGDS1B	8141	
31	6/4/2012 13:29	4457	6808	-2351	630-BKGDS1B	8141	
32	6/4/2012 13:31	4667	6808	-2141	630-BKGDS1B	8141	



Count Time: 1 min Class: 1 Area: 771.47 m² Site Area: NPR Survey Unit: 7

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
33	6/4/2012 13:32	4752	6808	-2056	630-BKGDS1B	8141	
34	6/4/2012 13:33	4577	6808	-2231	630-BKGDS1B	8141	
35	6/4/2012 13:34	5732	6808	-1076	630-BKGDS1B	8141	
36	6/4/2012 13:35	5203	6808	-1605	630-BKGDS1B	8141	
37	6/4/2012 13:37	3775	6808	-3033	630-BKGDS1B	8141	
38	6/4/2012 13:38	3916	6808	-2892	630-BKGDS1B	8141	
39	6/4/2012 13:46	4470	6808	-2338	630-BKGDS1B	8141	
40	6/4/2012 13:48	3403	6808	-3405	630-BKGDS1B	8141	
41	6/4/2012 13:49	4934	6808	-1874	630-BKGDS1B	8141	
42	6/4/2012 13:50	3099	6808	-3709	630-BKGDS1B	8141	
43	6/4/2012 13:51	2893	6808	-3915	630-BKGDS1B	8141	
44	6/4/2012 13:53	4517	6808	-2291	630-BKGDS1B	8141	
45	6/4/2012 13:56	3350	6808	-3458	630-BKGDS1B	8141	100 20 20 20
46	6/4/2012 13:57	3067	6808	-3741	630-BKGDS1B	8141	
47	6/4/2012 13:58	3471	6808	-3337	630-BKGDS1B	8141	
48	6/4/2012 14:00	5006	6808	-1802	630-BKGDS1B	8141	- 14 - 14 - 15 - 15 - 15 - 15 - 15 - 15
49	6/4/2012 14:01	2877	6808	-3931	630-BKGDS1B	8141	

Net Gamma cpm

Min: -3931

Summary

Avg: -1930

Max: 1421

St Dev: 1202

Readings > 30 investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Booost **Background Report**

Class: 1 Area: 771.47 m² Site Area: NPR Survey Unit: 7

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 600 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 95360 Probe Serial #: 192597

Calibration Due Date: 6/8/2012

Reference Area Background Identification #: 600-BKGDS1B Count Time (minutes): 1.00

Rdg#	Date and Time	Gross Gamma CPM
1	09/08/2011 13:56	6403
2	09/0B/2011 13:57	6371
3	09/08/2011 13:58	6445
4	09/08/2011 13:59	6476
5	09/08/2011 13:01	6384
6	09/08/2011 13:04	6441
7	09/08/2011 13:09	6015
8	09/08/2011 13:11	6189
9	09/08/2011 13:13	6336
10	09/08/2011 13:14	6452
11	09/08/2011 13:15	6517
12	09/08/2011 13:16	6495
13	09/08/2011 13:17	6459
14	09/08/2011 13:18	6549
15	09/08/2011 13:19	6418
16	09/08/2011 13:20	6428
17	09/08/2011 13:22	6278
18	09/08/2011 13:32	6226
19	09/08/2011 13:33	6377
20	09/08/2011 13:34	6456

Gamma Mean Background (cpm):

6386

Standard Deviation:

127

Gamma 3₀ Investigation

6765

Level (cpm):



Gamma Instrument and Reference Area Background Report

Site Area: NPR Survey Unit: 7 Class: 1 Area: 771.47 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 630

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588

Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	05/07/2012 13:53	5960
2	05/07/2012 13:54	6454
3	05/07/2012 13:55	6379
4	05/07/2012 13:56	6341
5	05/07/2012 13:58	6462
6	05/07/2012 13:59	5562
7	05/07/2012 14:00	6147
8	05/07/2012 14:01	6082
9	05/07/2012 14:02	6563
10	05/07/2012 14:04	6738
11	05/07/2012 14:06	5328
12	05/07/2012 14:07	5349
13	05/07/2012 14:09	5317
14	05/07/2012 14:10	6023
15	05/07/2012 14:11	6016
16	05/07/2012 14:12	6229
17	05/07/2012 14:13	6439
18	05/07/2012 14:15	6218
19	05/07/2012 14:18	5862
20	05/07/2012 14:19	5857

Gamma Mean Background (cpm): 6066

Standard Deviation: 420

Gamma 3σ Investigation 7326

Level (cpm):



TETRATECH EC, INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Booort **Background Report**

Site Area: NPR Survey Unit: 7 Class: 1 Area: 771.47 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 630 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588 Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-8KGDS18 Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	05/23/2012 13:42	6777
2	05/23/2012 13:43	6444
3	05/23/2012 13:44	7288
4	05/23/2012 13:45	7319
5	05/23/2012 13:47	6473
6	05/23/2012 13:48	6801
7	05/23/2012 13:49	7364
8	05/23/2012 13:50	7091
9	05/23/2012 13:S1	6567
10	05/23/2012 13:53	5952
11	05/23/2012 13:55	6739
12	0S/23/2012 13:56	6778
13	05/23/2012 13:58	6925
14	05/23/2012 13:59	6047
15	05/23/2012 14:00	6022
16	05/23/2012 14:02	7217
17	05/23/2012 14:03	6857
18	05/23/2012 14:05	7209
19	05/23/2012 14:07	7323
20	05/23/2012 14:08	6960

Gamma Mean Background (cpm): 6808

> Standard Deviation: 444

Gamma 3_o Investigation 8141

Level (cpm):



TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Site Area: NPR Survey Unit: 7 Class: 1 Area: 771.47 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model: Model 19

Reference Area Background

Identification #:

Instrument Serial Number: 115870
Instrument Calibration Due Date: 10/10/2012

Reference Area Background

Location:

Parcel D-1 Reference

636-BKGDS1

Exposure Rate

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	3/19/2012	6	
2	3/19/2012	6	
3	3/19/2012	5	
4	3/19/2012	5	
5	3/19/2012	6	
6	3/19/2012	5	
7	3/19/2012	5	
8	3/19/2012	5	
9	3/19/2012	6	
10	3/19/2012	5	
11	3/19/2012	5	
12	3/19/2012	5	
13	3/19/2012	4	
14	3/19/2012	5	
15	3/19/2012	5	
16	3/19/2012	5	
17	3/19/2012	4	
18	3/19/2012	5	
19	3/19/2012	5	
20	3/19/2012	5	
21	3/19/2012	4	
22	3/19/2012	4	
23	4/20/2012	5	
24	4/20/2012	6	
25	4/27/2012	6	
26	4/27/2012	6	
29	5/24/2012	5	

TETRA TECH EC, INC. Hunters Point Shipyard San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
30	6/4/2012	6	
31	6/4/2012	6	
32	6/4/2012	6	
33	6/4/2012	6	
34	6/4/2012	5	
35	6/4/2012	5	
36	6/4/2012	6	
37	6/4/2012	5	
38	6/4/2012	5	
39	6/4/2012	5	
40	6/4/2012	5	
41	6/4/2012	4	10. 100
42	6/4/2012	4	
43	6/4/2012	5	
44	6/4/2012	5	
45	6/4/2012	4	
46	6/4/2012	4	
47	6/4/2012	5	
48	6/4/2012	5	
49	6/4/2012	4	20/3

Exposure Rate
Summary (µR/hr)

Min: 4.00

Avg: 5.06

Max: 6.00

St Dev: 0.67



TETRA TECH EC, INC. 1230 Columbia St, Sulte 750

San Diego, CA 92101

BFS 02314

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS A H A H A 8 K 6 0 CEPSAME Σ 2 2 [2] $oldsymbol{\Sigma}$ > **\S** \square TYPE S T S <u>S</u> હ છ ည દ છ છ છ 949-756-7592 4044-0002 Containers LEVEL Š ۲ Project Chemist Phone Project Number Airbill Number PO Number 3/19/2012 OF SO 3/19/2012 102.D 3192012 0955 311912012 1005 3/19/2012 0958 3/19/2012 | 1000 3/19/2012 1/0/LO 3/19/2012 10/5 TIME 3/19/2012 1/030 31912012 1025 DATE Sampler Name ROBERSON Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 02NPR-S0007-F001-01 02NPR-S0007-F004-01 02NPR-S0007-F005-01 02NPR-S0007-F002-01 02NPR-S0007-F003-01 02NPR-S0007-F006-01 02NPR-S0007-F007-01 02NPR-S0007-F008-01 02NPR-S0007-F009-01 02NPR-S0007-F010-01 SAMPLE_ID

Relinquished by: (signature)	Date 3.19.12	Received by: (signature)	LABORATORY INSTRUCTIONS COMMENTS SAMPLING COMMENTS
	Time 15:45	Company	Valent Fig. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
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Page 1 of 1

Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02315

Project Information Section SAMPLE ID ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS 4 A A II A II A 8 **2** 6 6 のよびかるなるまの [2] **S** [2] **> \S S** Σ Σ Σ **>** TYPE ည છ ည ည \tilde{c} જ S છ S ည 949-756-7592 4044-0002 LEVEL Š Project Chemist Phone Containers Project Number Airbill Number PO Number TIME 349/2012 1045 3/19/2012 11130 3/19/2012 1/05/2 3/19/2012 11 00 3192012 1055 3/19/2012 | 11 1 D 3/19/2012 1120 3/19/2012 1135 3/19/2012 | 1115 3/19/2012 DATE Sampler Name DOSSER SDN Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 02NPR-S0007-F013-01 02NPR-S0007-F015-01 02NPR-S0007-F014-01 02NPR-S0007-F016-01 02NPR-S0007-F017-01 02NPR-S0007-F018-01 02NPR-S0007-F019-01 02NPR-S0007-F021-01 02NPR-S0007-F022-01 02NPR-S0007-F020-01 SAMPLE_ID

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Сотрапу	Time	Сотрану	TEMPERATURE: SAMPLE CONDITION: COOLER SEALL.	
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02384

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS A H A L A 8 K 6 0 Σ Σ 2 \Box **S** Σ TYPE . S1 ည ည S છ S જ ၓ ည Project Chemist Phone 949-756-7592 4044-0002 LEVEL Š Š Containers Project Number Airbill Number PO Number TIME 1055 4/20/2012 10.50 4/20/2012 11.35 4/20/2012 1040 412012012 1125 1130 412012012 1045 4/20/2012 | 1110 4/20/2012 1115 4/20/2012 4/20/2012 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT JOE CUMINGHAM 02NPR-S0001-F023-01 02NPR-S0001-F024-01 02NPR-S0001-F025-01 02NPR-S0001-F026-01 02NPR-S0007-F023-01 02NPR-S0007-F024-01 02NPR-S0010-F023-01 02NPR-S0010-F024-01 02NPR-S0010-F025-01 Sampler Name SAMPLE_ID

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Relinquished W. (signature)	(1.07. Jung	Received by: (signature	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company) (A)	Time /4/8	Time 14/8 Company CT		Weard Fold for
Relinquished by: (signature)	Dare	Received by: (signature)	COMPOSITE DESCRIPTION	CHARLE CERTAFFINE DE-CL
Company	Time	Сошрану		50° 7
Relinquished by: (signanre)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	(4) 10 (4) (4) (4) (4) (4) (4) (4) (4) (4) (4)
Company	Time	Сотрану	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL.	CHACAGE CHAMA (4-16

TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02393 Chain-of-Custody Record

Designed Witness							j						
Radiological Site Survey	vey	PO Number	៦	N/A			ე ∢	S) E	4 ⊦		LABORATORY NAME	Decisor I	Drogoot Information
Project Location HUNTERS POINT		Project Number	ımber	4044-0002	21		ΣΣ	460	1 P. E.		ONSITE - Curtis & Tomokins, LTD.		Section
Sampler Name		Airbill Number	aber .			Τ	٧ (_	¥			-	
Joe Cunninghan	٤			N/A			ر در.				LABORATORY ID		
Project Chemist LISA BIENKOWSKI		Project Ch	Project Chemist Phone	949-756-7592	7592		思 C			•			
SAMPLE_ID	DATE	TIME	TIME Containers LEVEL	LEVEL	TYPE	۲.	-	_	_	COMMENTS	TOO I		
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Company ASAS	L 016m2	Company CE		
Relinguished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Сотрапу	Time	Сотрапу		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Сотрапу	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL,	
		10.		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02410

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TETRA TECH EC, INC.
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1230 Columbia St, Suite 750 TETRA TECH EC, INC.

San Diego, CA 92101

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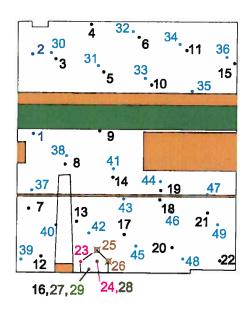
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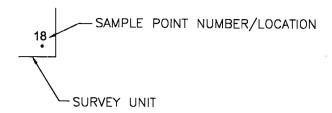
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NORTH PIER WA-32 SURVEY UNIT 07



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From:

Chiu, George

Sent:

Wednesday, July 11, 2012 4:22 PM

To:

Cc:

Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer,

Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject:

HPS Data - North Pier Survey Unit 07

Attachments:

02NPR-S0007 030 to 049 Off-Site Gamma pdf; 02NPR-S0007 Pu and Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec, strontium, and plutonium results for the systematic samples from North Pier Survey Unit 07.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

www.radsvcs.com

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From: Chiu, George

Sent: Sunday, June 10, 2012 4:54 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from North Pier Survey Unit 07. Sample 35 was recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270,4009

george.chiu@tetratech.com

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STI

Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Monday, June 04, 2012 10:13 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 07.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist
Office. 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

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www.radsvcs.com

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From: Chiu, George

Sent: Tuesday, May 29, 2012 8:52 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for sample 24, which identified cesium-137 activity above the release criterion, from North Pier Survey Unit 07.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

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From: Chiu, George

Sent: Thursday, May 10, 2012 3:55 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 07.

We will proceed with additional remediation followed by post-remediation sampling.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Tuesday, May 01, 2012 1:50 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 07

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

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From: Chiu, George

Sent: Thursday, April 26, 2012 12:42 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 07. Samples 23 and 24 were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with characterization/remediation around sample point 24 (0.1590 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno. NV 89503

www.radsvcs.com

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From: Chiu, George

Sent: Wednesday, April 25, 2012 10:05 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample with cesium-137 activity above the release criterion from North Pier Survey Unit 07.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George

Sent: Monday, March 26, 2012 9:53 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil);

Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder,

Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 07

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from North Pier Survey Unit 07. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 16 (0.2500 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 19, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, and #33. Details of the work activities performed are provided in the sections below.

North Pier

- Survey activities were performed by the HPNS Team on wooden railroad ties (Survey Nos. HPS-A-NPR-029 and HPS-A-NPR-030); a total of 72 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 6 A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,392 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 7 A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 5,465 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 6 and 7.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 1.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were completed in Trench Unit Nos. 192 and 194 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 19, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - One truckload of material was received for processing.
 - Remediated approximately 2.5 cubic yards of soil from ES Unit 0618 and placed the material in LLRW bins pending off-site disposal by the DON radiological waste contractor.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 55
 - Swipe samples received for Protean counts: 175
 - Air samples received: 6
 - Samples analyzed by gamma spectroscopy: 82
 - Gamma spectroscopy samples recounted: 3
 - Protean swipe samples counted: 8
 - Protean air samples counted: 6
- A total of 291 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Portal Monitor Activities
 - A total of two empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of nine truckloads of material exited HPNS through the portal monitor with no alarms.
- Radiological support was provided to Shaw Group by the HPNS Team during groundwater monitoring activities in Buildings 211/253.
- Radiological support was provided during the Parcel C multi-contractor bid walkthrough.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: March 19, 2012	RMAC – CTO 07
110poit Date: 111aron 19, 2012	RWAC - CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 507 Sites, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

 Approximately 28 cubic yards of excavated soil generated during the former underground radiological waste storage tank exploratory excavation was placed in LLRW bins AWIU000126, AWIU000175, and ESUU10078 for off-site disposal.

Building 507 Site

• The HPNS Team performed soil grading and debris removal in preparation for upcoming towed array surveys.

Shacks 79 and 80

- Approximately 7 cubic yards of soil was remediated from Class 1 Survey Unit 1 by the HPNS Team and placed in LLRW bin AWIU000126 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of five post-remediation gamma static measurements were logged with a maximum measurement of 6,725 cpm. In addition, five soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team transferred approximately 12 cubic yards of excavated sand/soil material from Survey Unit 13 to RSY4 pending survey activities.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 7; no activity above the release criteria was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 16 and for systematic sample collection in Class 1 Survey Units 20 and 21.

• Surveyed and released concrete debris generated during sand/soil removal in Survey Unit 13 (Survey Nos. HPS-A-500SA-040 and HPS-A-500SA-041) was transferred to the recycling bins and stockpiles near Building 411.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 20, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of four characterization gamma static measurements were logged with a maximum measurement of 7,840 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 7 A total of two characterization gamma static measurements were logged with a maximum measurement of 6,087 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of seven characterization gamma static measurements were logged with a maximum measurement of 6,911 cpm. In addition, seven soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A total of three characterization gamma static measurements were logged with a maximum measurement of 6,691 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 7, 8, and 10.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 8.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

 The HPNS Team excavated approximately 156 cubic yards of soil from Work Area #32 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	02-C32-00-1D	45 linear feet completed
-	02-C32-00-1E	6 linear feet completed
-	02-C32-00-1F	44 linear feet completed
-	02-C32-00-1J	12 linear feet completed

-	02-C32-00-1K	15 linear feet completed
-	02-C32-00-8D	62 linear feet completed
-	02-C32-00-8H	50 linear feet completed

- A total of 122 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 112 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH946, MH1334, MH1335 and MH1336 along and pipes excavated from trench segments 02-C32-00-1D, -1E, -1F, -1J, -1K, -8D, and -8H were placed on plastic pending further activities.
- The HPNS Team investigated the entire trench segment 02-C32-00-1F for the presence of pipe. Although depicted on the design drawing, no pipe was found during this investigation.
- A total of two sediment samples were collected from excavated Manholes MH946 (02-PCMH946-064-01) and MH1336 (02-PCMH1336-063-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for the excavated manholes and pipe sections detailed in Survey Nos. HPS-PCPIPE-041312-051, HPS-PCPIPE-041312-052, and HPS-PCPIPE-041612-053. Because no activity above the release criteria was identified, these 17 manholes and 11 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- Metal rail track encountered during Work Area #32 trench excavations was sized and staged for transfer to the recycling bins near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 20, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed towed array survey activities for ES Units 0686 and 0687 at RSY3.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 13 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Units 0645, 0678, 0681, 0683, 0692, and 0693.
 - ES Units 0659 and 0674 were staged in the stockpile area pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0675 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 36
 - Swipe samples received for Protean counts: 128
 - Air samples received: 10
 - Samples analyzed by gamma spectroscopy: 25
 - Gamma spectroscopy samples recounted: 5
 - Protean swipe samples counted: 40
 - Protean air samples counted: 10
- A total of 188 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 20, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

• The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of two systematic gamma static measurements were logged with a maximum measurement of 5,807 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team exposed asphalt and continued soil grading and debris removal in preparation for towed array surveys in Class 2 Survey Unit 23.
- Asphalt covering Survey Unit 23 (near Building 505) was removed, scanned, and staged within the Class 2 survey boundaries; no elevated readings were identified during the scanning activities.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

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Report Date: April 27, 2012	RAD EMAC – CTO 002
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Overview

The HPNS Team continued field activities for the North Pier and Work Area #32. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 96 cubic yards of asphalt removed from Survey Unit 9 was transferred by the HPNS Team to the Building 411 recycling stockpiles
- A total of 12 cubic yards of soil were remediated from Class 1 Survey Units 1, 8, and 10 by the HPNS Team and placed in LLRW bin ESUU100006 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 7. A total of two characterization gamma static measurements were logged with a maximum measurement of 6,021 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class1 Survey Unit 11. Characterization and remediation will be performed due to the presence of ¹³⁷Cs activity above the release limit at Sample Point 24 (0.118 pCi/g).

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Manhole MH946 was placed in LLRW bin ESSU100006 for off-site disposal by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 27, 2012	Date of one
Keport Date: April 27, 2017	RMAC – CTO 004
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Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - Towed array survey activities were performed for ES Unit 0695.
 - Two biased and 18 systematic soil samples were collected from ES Unit 0691 and submitted to the on-site laboratory for analysis.
 - ES Units 0658, 0676, and 0680 were staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 71
 - Swipe samples received for Protean counts: 6
 - Air samples received: 7
 - Samples analyzed by gamma spectroscopy: 62
 - Gamma spectroscopy samples recounted: 12
 - Protean swipe samples counted: 6
 - Protean air samples counted: 8
- A total of 387 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 27, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 520 Site

- Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 5 by the HPNS Team and placed in LLRW bin AWIU000263 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 5. A total of two replacement systematic gamma static measurements were logged with a maximum measurement of 5,596 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 707 Triangle

- Towed array gamma scan surveys were performed over J Street in Work Area #21.
- Backfill activities were completed for Class 1 Survey Unit 19 by the HPNS Team.
- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Units 16, 20, 21, and 22.

500 Series Area

- The HPNS Team resumed soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Unit 23.
- Towed array gamma scan surveys were performed over Class 2 Survey Unit 22.
- The HPNS Team performed Class 1 survey activities for Survey Unit 19. A total of five characterization gamma static measurements were logged with a maximum measurement of 5,643 cpm. In addition, five soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 19.

Issues/Items Pending Action



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 7, 2012 RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities for Survey Unit 7. A total of two post-remediation gamma static measurements were logged with a maximum measurement of 7,807 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued a record drawing to identify the post-remediation sample collection location in Class 1 Survey Unit 7.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated for Trench Unit No. 243 by the HPNS Team.
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 244 along with a request for concurrence to backfill.
- The HPNS Team issued an updated Parcel C Trench Survey Unit Key Plan.
- Perimeter fencing was reconfigured in Work Area #34 to facilitate trench backfill activities.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 7, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 14 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of eight truckloads of material were received for processing.
 - Issued drawings to identify remediation locations in ES Unit 0640 and biased and systematic sample collection locations for ES Unit 0682.
 - Soil samples were collected by the HPNS Team and submitted to the on-site laboratory for analysis as follows:
 - 2 biased soil samples from ES Unit 0626
 - 3 biased soil samples from ES Unit 0645
 - 2 biased and 18 systematic soil samples from ES Unit 0682
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with off-site laboratory analytical results for ES Unit 0653 and a request for concurrence to use the materials as trench backfill.

Basewide Support

Five outgoing materials and equipment surveys were performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 27
 - Swipe samples received for Protean counts: 88
 - Air samples received: 13
 - Samples analyzed by gamma spectroscopy: 77
 - Gamma spectroscopy samples recounted: 6
 - Protean swipe samples counted: 97
 - Protean air samples counted: 12
- A total of 195 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 7, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- Asphalt covering J Street and Class 1 Survey Units 22 and 23 was removed, scanned, and staged within the Building 707 Triangle boundaries; no elevated readings were identified during the scanning activities.
- Approximately 18 cubic yards of soil was remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bin BFLU000349T17 for off-site disposal.

500 Series Area

- The HPNS Team resumed exposing asphalt and soil grading activities in preparation for towed array surveys in Class 2 Survey Unit 23.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 13.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 264 cubic yards of soil from Work Area #36
and transferred the material to both RSY3 and RSY4 for processing. Excavation
activities were performed for the following trench segments:

-	07-E36-00-9G	29 linear feet completed
-	07-E36-38-4E	93 linear feet completed
-	07-E36-38-4F	103 linear feet completed
-	07-E36-38-4G	39 linear feet completed
-	07-E36-38-4H	79 linear feet completed
		<u>-</u>

- A total of 343 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings were completed by the HPNS Team.
- Manholes MH1243 and MH1341 along with pipe excavated from trench segments 07-E36-00-9G; 07-E36-38-4E, -4F, -4G, and -4H were placed on plastic pending further activities.

- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 24, 2012	RAD EMAC – CTO 002
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Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, #34, and #35. Details of the work activities performed are provided in the sections below.

North Pier

• The HPNS Team performed Class 1 survey activities for Survey Unit 7. A post-remediation gamma static measurement was logged at 4,071 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated manholes and pipe sections (Survey Nos. HPS-PCPIPE-121311-041, HPS-PCPIPE-043012-054 and HPS-PCPIPE-043012-055) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 238 (associated with Buildings 211, 231, and 253) along with a request for backfill concurrence.
- The HPNS Team issued Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 242.
- Site restoration activities including curbing installation were continued by the HPNS Team over backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 24, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - Towed array survey activities were performed for ES Units 0696, 0699, and 0707.
 - ES Unit 0694 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 95
 - Swipe samples received for Protean counts: 34
 - Air samples received: 5
 - Samples analyzed by gamma spectroscopy: 149
 - Gamma spectroscopy samples recounted: 11
 - Protean swipe samples counted: 34
 - Protean air samples counted: 5
- A total of 253 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Radiological support was provided to CKY by the HPNS Team during maintenance activities at Parcel E-2.
- One outgoing materials and equipment survey was performed by the HPNS Team.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 24, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the 500 Series Area and Work Area #36. Details of the activities performed are provided in the sections below.

500 Series Area

- Approximately 5 cubic yards of soil was remediated from Class 1 Survey Unit 15 by the HPNS Team and placed in LLRW bin GFLU001181T4 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 15. A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,668 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Building 500 Series Area metal wire rope and debris (Survey No. HPS-A-500SA-035) continued to be placed in LLRW bins BKRU025441T7, GFLU001070, GFLU001119, and GFLU002111 for off-site disposal.
- Approximately 2 cubic yards of soil was remediated from Trench Unit No. 300 (trench segment 07-E36-00-7I) by the HPNS Team and placed in LLRW bin GFLU001042 for off-site disposal.
- A total of three post-remediation samples were collected from Trench Unit No. 300 by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team issued Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 248 (associated with the Building 506 Site).
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: June 4, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #34, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities for Survey Unit 7. A total of 20 systematic gamma static measurements were logged with a maximum measurement of 5,732 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with on-site analytical results for the postremediation sample collected from Class 1 Survey Unit 7. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team issued drawings to identify systematic sample collection locations in Class 1 Survey Unit 7 and record drawings to identify post-remediation sample collection locations in Class 1 Survey Unit 7.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated for Trench Unit No. 242 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: June 4, 2012	PMAC CTO 004
Report Date: June 4, 2012	RMAC – C10 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of 19 truckloads of material were received for processing.
 - ES Unit 0698 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs.
- On-site analytical data for ES Units 0697 and 0707 were submitted to the RASO for review with a request for concurrence to stage the materials pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 27
 - Swipe samples received for Protean counts: 98
 - Air samples received: 3
 - Samples analyzed by gamma spectroscopy: 74
 - Gamma spectroscopy samples recounted: 8
 - Protean swipe samples counted: 137
 - Protean air samples counted: 4
- A total of 123 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Portal Monitor Activities
 - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 46 truckloads of material exited HPNS through the portal monitor with no alarms.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: June 4, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- The HPNS Team provided the RASO with on-site analytical results for the investigative soil samples collected from the 25 pothole excavations around the previously remediated strontium spill area associated with Class 1 Survey Units 16, 21, 22, and 23. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination as follows:
 - Pothole 16 Wall Sample (03AB707-200) with ¹³⁷Cs at 0.2159 pCi/g
 - Pothole 24 Wall Sample (03AB707-216) with ¹³⁷Cs at 0.2096 pCi/g

Shacks 79 and 80

- The HPNS Team provided the RASO with on-site analytical results for the postremediation samples collected from Class 1 Survey Unit 3. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team issued record drawings to identify post-remediation sample collection locations in Class 1 Survey Unit 3.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming survey activities in Class 2 Survey Units 22 and 23.
- The HPNS Team provided the RASO with on-site analytical results for the postremediation samples collected from Class 1 Survey Unit 15. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

 Approximately 576 cubic yards of staged asphalt removed from radiologically cleared Class 1 Survey Units 10 and 11 was transferred by the HPNS Team from the Salvage Yard to the Building 411 recycling stockpiles.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 228 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-38-1I	48 linear feet completed
-	07-E36-38-1J	15 linear feet completed
-	07-E36-38-1K	31 linear feet completed
- 10	07-E36-38-1M	3 linear feet completed
-	07-E36-38-1N	3 linear feet completed
-	07-E36-38-8E	10 linear feet completed
-	07-E36-38-8F	10 linear feet completed

- A total of 100 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 20 linear feet not identified on the design drawings were completed by the HPNS Team.
- Excavated Manholes MH1254, MH1255, MH1258, MH1259, and MH1260 were placed on plastic pending further activities.
- A total of five sediment samples were collected from excavated Manholes MH1255, MH1258, MH1259, MH1260, and MH1262 (MH0020 through MH0024) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team provided the RASO with on-site analytical results for the postremediation samples collected from Trench Unit No. 300. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- Work area perimeter fencing was reconfigured by the HPNS Team along H Street.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

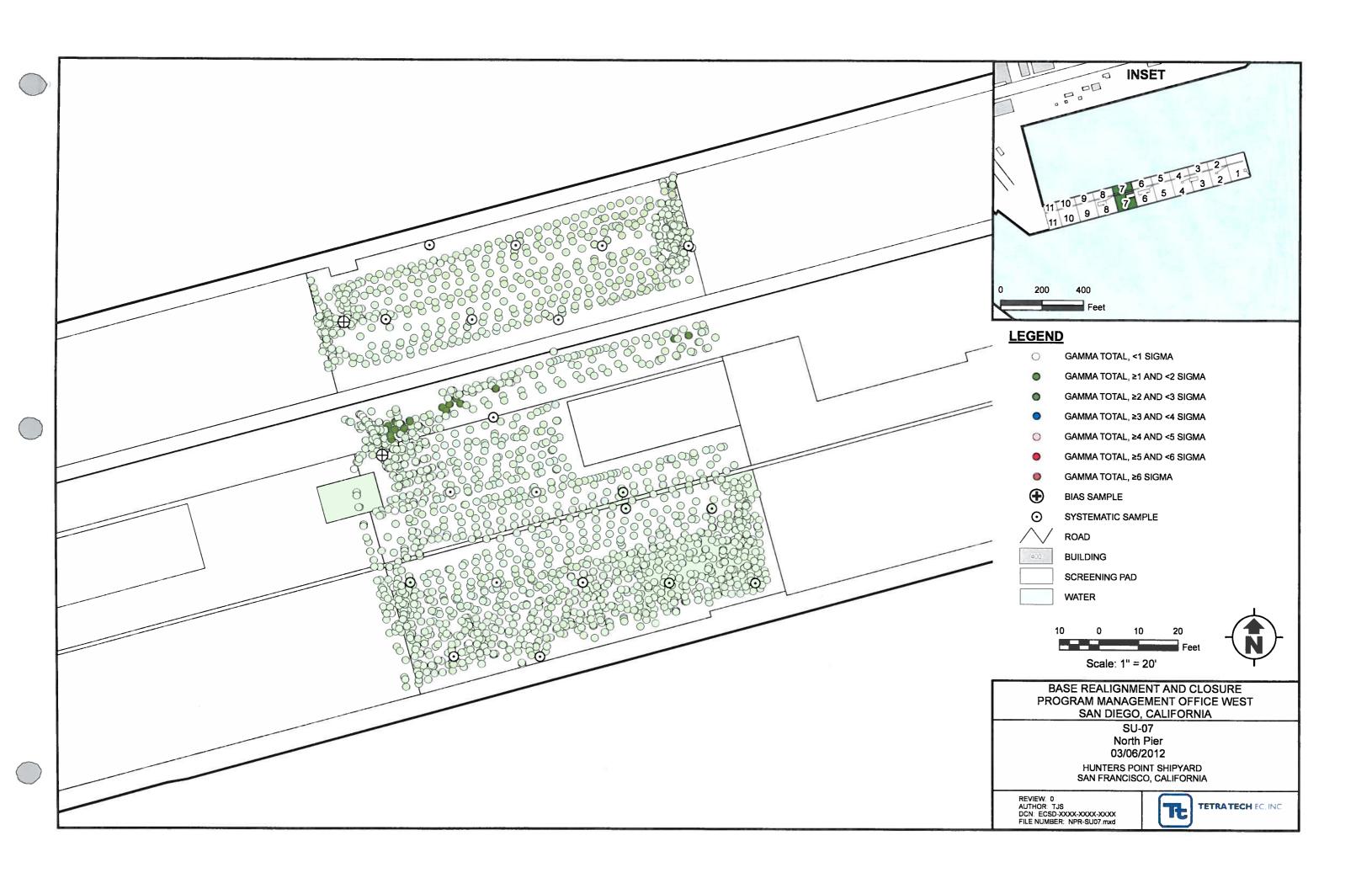
	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
NPR	7	1	Biased	02NPR-S0007-F001-01	19-Mar-12	Ray Roberson
NPR	7	2	Biased	02NPR-S0007-F002-01	19-Mar-12	Ray Roberson
NPR	7	3	Systematic	02NPR-S0007-F003-01	19-Mar-12	Ray Roberson
NPR	7	4	Systematic	02NPR-S0007-F004-01	19-Mar-12	Ray Roberson
NPR	7	5	Systematic	02NPR-S0007-F005-01	19-Mar-12	Ray Roberson
NPR	7	6	Systematic	02NPR-S0007-F006-01	19-Mar-12	Ray Roberson
NPR	7	7	Systematic	02NPR-S0007-F007-01	19-Mar-12	Ray Roberson
NPR	7	8	Systematic	02NPR-S0007-F008-01	19-Mar-12	Ray Roberson
NPR	7	9	Systematic	02NPR-S0007-F009-01	19-Mar-12	Ray Roberson
NPR	7	10	Systematic	02NPR-S0007-F010-01	19-Mar-12	Ray Roberson
NPR	7	11	Systematic	02NPR-S0007-F011-01	19-Mar-12	Ray Roberson
NPR	7	12	Systematic	02NPR-S0007-F012-01	19-Mar-12	Ray Roberson
NPR	7	13	Systematic	02NPR-S0007-F013-01	19-Mar-12	Ray Roberson
NPR	7	14	Systematic	02NPR-S0007-F014-01	19-Mar-12	Ray Roberson
NPR	7	15	Systematic	02NPR-S0007-F015-01	19-Mar-12	Ray Roberson
NPR	7	16	Systematic	02NPR-S0007-F016-01	19-Mar-12	Ray Roberson
NPR	7	17	Systematic	02NPR-S0007-F017-01	19-Mar-12	Ray Roberson
NPR	7	18	Systematic	02NPR-S0007-F018-01	19-Mar-12	Ray Roberson
NPR	7	19	Systematic	02NPR-S0007-F019-01	19-Mar-12	Ray Roberson
NPR	7	20	Systematic	02NPR-S0007-F020-01	19-Mar-12	Ray Roberson
NPR	7	21	Systematic	02NPR-S0007-F021-01	19-Mar-12	Ray Roberson
NPR	7	- 22	Systematic	02NPR-S0007-F022-01	19-Mar-12	Ray Roberson
NPR	7	23	Characterization	02NPR-S0007-F023-01	20-Apr-12	Joe Cunningham
NPR	7	24	Characterization	02NPR-S0007-F024-01	20-Apr-12	Joe Cunningham
NPR	7	25	Characterization	02NPR-S0007-F025-01	27-Apr-12	Joe Cunningham
NPR	7	26	Characterization	02NPR-S0007-F026-01	27-Apr-12	Joe Cunningham
NPR	7 .	27	Post-Remediation	02NPR-S0007-F027-01	07-May-12	Justin Hubbard
NPR	7	28	Post-Remediation	02NPR-S0007-F028-01	07-May-12	Justin Hubbard
NPR	7	29	Post-Remediation	02NPR-S0007-F029-01	24-May-12	Joe Cunningham
NPR	7	30	Systematic	02NPR-S0007-F030-01	04-Jun-12	Justin Hubbard
NPR	7	31	Systematic	02NPR-S0007-F031-01	04-Jun-12	Justin Hubbard
NPR	7	32	Systematic	02NPR-S0007-F032-01	04-Jun-12	Justin Hubbard
NPR	7	33	Systematic	02NPR-S0007-F033-01	04-Jun-12	Justin Hubbard
NPR	7	34	Systematic	02NPR-S0007-F034-01	04-Jun-12	Justin Hubbard
NPR	7	35	Systematic	02NPR-S0007-F035-01	04-Jun-12	Justin Hubbard
NPR	7	36	Systematic	02NPR-S0007-F036-01	04-Jun-12	Justin Hubbard
NPR	7	37	Systematic	02NPR-S0007-F037-01	04-Jun-12	Justin Hubbard
NPR	7	38	Systematic	02NPR-S0007-F038-01	04-Jun-12	Justin Hubbard
NPR	7	39	Systematic	02NPR-S0007-F039-01	04-Jun-12	Justin Hubbard
NPR	7	40	Systematic	02NPR-S0007-F040-01	04-Jun-12	Justin Hubbard
NPR	7	41	Systematic	02NPR-S0007-F041-01	04-Jun-12	Justin Hubbard
NPR	7	42	Systematic	02NPR-S0007-F042-01	04-Jun-12	Justin Hubbard
NPR	7	43	Systematic	02NPR-S0007-F043-01	04-Jun-12	Justin Hubbard
NPR	7	44	Systematic	02NPR-S0007-F044-01	04-Jun-12	Justin Hubbard
NPR	7	45	Systematic	02NPR-S0007-F045-01	04-Jun-12	Justin Hubbard
NPR	7	46	Systematic	02NPR-S0007-F046-01	04-Jun-12	Justin Hubbard
NPR	7	47	Systematic	02NPR-S0007-F047-01	04-Jun-12	Justin Hubbard
NPR	7	48	Systematic	02NPR-S0007-F048-01	04-Jun-12	Justin Hubbard
NPR	7	49	Systematic	02NPR-S0007-F049-01	04-Jun-12	Justin Hubbard

	On-	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
15.63	1.168	-0.0009669	0.5291	0.7158
16.91	0.5637	-0.0002979	0.4358	0.4979
19.13	1.028	0.0277	0.4626	0.4865
20.3	0.621	-0.001593	0.5052	0.5157
15.48	0.819	0.01101	0.4683	0.5568
20.89	0.7795	0.009819	0.7346	0.7098
11.26	0.2066	0.0008793	0.2546	0.191
16.59	0.9166	0.01388	0.3516	0.5534
8.158	0.8269	0.002505	0.4968	0.3786
12.7	0.2669	0.001545	0.2512	0.4162
22.16	0.9708	0.004272	0.556	0.5297
12.36	0.2818	0.02673	0.3632	0.2874
7.311	0.2813	0.008543	0.2881	0.2898
16.23	0.6444	-0.002545	0.4844	0.4966
22.33	0.5916	-0.005973	0.4122	0.5358
14.33	0.7524	0.25	0.2828	0.347
8.851	0.7903	0.005041	0.3762	0.2729
8.837	0.3059	-0.01198	0.2328	0.3336
7.614	0.466	0.002288	0.2933	0.3799
6.105	0.5077	-0.003496	0.1316	0.2039
7.705	0.2338	0.004554	0.2875	0.3079
7.675	0.6167	0	0.1376	0.2531
18.72	0.4651	0.09868	0.3326	0.3951
17.07	0.4677	0.159	0.3357	0.3748
15.18	0.3498	0	0.4151	0.5917
20.68	1.227	0.04655	0.4405	0.7648
18.46	0.546	0.112	0.4669	0.5614
19.45	1.033	0.05426	0.4551	0.5767
9,287	1.121	0	0.4017	0.3918
1.165	0.1813	-0.0003672	0.1739	0.1857
1.902	0.1191	0.005892	0.1098	0.1629
1.631	0.4346	0.004759	0.09655	0.02672
1.223	0.3503	-0.00007568	0.0579	0.1899
0.8122	0.2193	-0.008789	0.08735	0.2021
1.636	0.2614	-0.004871	0.1141	0.2028
1.455	0.2686	0.006069	0.1222	0.07728
0.8436	0.2348	-0.0121	0.05346	0.1819
1.12	0.2095	0	0.1009	0.1006
2.067	0.3081	0.0005948	0.06008	0.09565
1.501	0.2505	0.0000348	-0.02728	0.2198
1.63	0.2000	-0.004487	-0.001929	0.1397
1.834	0.2233	0.0003867	0.2036	0.1399
1.721	0.1298	0	0.09678	0.1991
2.111	0.1023	0.005003	0.1499	0.1931
2.235	0.2233	0.0008782	0.09436	0.1061
1.429	0.4846	0.0000702	0.09921	0.1184
1.29	0.3147	0	0.03321	0.05316
1.558	0.06235	-0.01199	0.05397	0.05510
1.882	0.00233	0	0.03337	0.1303
1.002 405 (n.Ci/n)	0.2000	U	0.00110	V. 140

K-40	Ra-226	Cs-137	Bi-214	Pb-214
1.81	0.134	0	0.134	0.164
1.28	0.0345	-0.0114	0.0345	0.184
1.6	0.239	-0.012	0.239	0.209
2.25	0.173	0.0025	0.173	0.218
1.66	0.174	-0.00205	0.174	0.0813
1.32	0.237	0.006	0.237	0.145
0.948	0.127	0.00585	0.127	0.219
1.08	0.267	0.021	0.267	0.0313
1.54	0.0825	0.00192	0.0825	0.136
1.3	0.176	-0.0104	0.176	0.227
1.69 1.14	0.093 0.0408	-0.0176 0	0.093 0.0408	0.354 0.123
2.73	0.0408	-0.000141	0.0408	0.123
1.08	0.139	0.0137	0.139	0.0845
0.728	0.146	0.0298	0.146	0.0961
1.44	0.0909	-0.0135	0.0909	0.197
0.993	0.173	-0.000793	0.173	0.183
-0.611	0.00245	-0.000378	0.00245	0.252
0.91	0.166	0.0261	0.166	0.229
1.27	0.262	0.0121	0.262	0.24

Off-Site Laboratory (pCi/g)

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)



HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 08



SCALE 1:40



Gamma Instrument and Reference Area Background Report

Site Area: NPR Survey Unit: 8 Class: 1 Area: 767.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 600

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 95360

Probe Serial #: 192597

Calibration Due Date: 6/8/2012

Reference Area Background Identification #: 600-BKGDS1B Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	09/08/2011 13:56	6403
2	09/08/2011 13:57	6371
3	09/08/2011 13:58	6445
4	09/08/2011 13:59	6476
5	09/08/2011 13:01	6384
6	09/08/2011 13:04	6441
7	09/08/2011 13:09	6015
8	09/08/2011 13:11	6189
9	09/08/2011 13:13	6336
10	09/08/2011 13:14	6452
11	09/08/2011 13:15	6517
12	09/08/2011 13:16	6495
13	09/08/2011 13:17	6459
14	09/08/2011 13:18	6549
15	09/08/2011 13:19	6418
16	09/08/2011 13:20	6428
17	09/08/2011 13:22	6278
18	09/08/2011 13:32	6226
19	09/08/2011 13:33	6377
20	09/08/2011 13:34	6456

Gamma Mean Background (cpm):

6386

Standard Deviation:

127

Gamma 3_o Investigation

6765

Level (cpm):



Gamma Instrument and Reference Area Background Report

Site Area: NPR

Survey Unit: 8

Class: 1

Area: 767.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 630

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588

Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-BKGD51B Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	05/23/2012 13:42	6777
2	05/23/2012 13:43	6444
3	05/23/2012 13:44	7288
4	05/23/2012 13:45	7319
5	05/23/2012 13:47	6473
6	05/23/2012 13:48	6801
7	05/23/2012 13:49	7364
8	05/23/2012 13:50	7091
9	05/23/2012 13:51	6567
10	05/23/2012 13:53	5952
11	05/23/2012 13:55	6739
12	05/23/2012 13:56	6778
13	05/23/2012 13:58	6925
14	05/23/2012 13:59	6047
15	05/23/2012 14:00	6022
16	05/23/2012 14:02	7217
17	05/23/2012 14:03	6857
18	05/23/2012 14:05	7209
19	05/23/2012 14:07	7323
20	05/23/2012 14:08	6960

Gamma Mean Background (cpm):

6808

Standard Deviation:

444

Gamma 3σ Investigation

8141

Level (cpm):



TETRATECH EC, INC. Gamma Direct Measurement Report San Francisco, CA

Site Area: NPR Survey Unit: 8 Class: 1 Area: 767.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background	3σ Investigation	Comments
	W 1453	СРМ	СРМ	СРМ		Level (cpm)	
1	3/20/2012 12:55	5974	6386	-412	600-BKGDS1B	6765	
2	3/20/2012 12:56	5322	6386	-1064	600-BKGDS1B	6765	
3	3/20/2012 12:58	5573	6386	-813	600-BKGDS1B	6765	
4	3/20/2012 12:59	5813	6386	-573	600-BKGDS1B	6765	
5	3/20/2012 13:01	6470	6386	84	600-BKGDS1B	6765	
6	3/20/2012 13:02	5169	6386	-1217	600-BKGDS1B	6765	
7	3/20/2012 13:04	5242	6386	-1144	600-BKGDS1B	6765	
8	3/20/2012 13:05	4722	6386	-1664	600-BKGDS1B	6765	
9	3/20/2012 13:07	5328	6386	-1058	600-BKGDS1B	6765	
10	3/20/2012 13:08	4335	6386	-2051	600-BKGDS1B	6765	
11	3/20/2012 13:24	5183	6386	-1203	600-BKGDS1B	6765	
12	3/20/2012 13:25	3383	6386	-3003	600-BKGDS1B	6765	
13	3/20/2012 13:27	3501	6386	-2885	600-BKGDS1B	6765	1000
14	3/20/2012 13:29	5260	6386	-1126	600-BKGDS1B	6765	
15	3/20/2012 13:30	4000	6386	-2386	600-BKGDS1B	6765	
16	3/20/2012 13:31	6651	6386	265	600-BKGDS1B	6765	
17	3/20/2012 13:32	3284	6386	-3102	600-BKGDS1B	6765	The second secon
18	3/20/2012 13:33	4296	6386	-2090	600-BKGDS1B	6765	
19	3/20/2012 13:35	4830	6386	-1556	600-BKGDS1B	6765	
20	3/20/2012 13:36	5290	6386	-1096	600-BKGDS1B	6765	
21	3/20/2012 13:37	3142	6386	-3244	600-BKGDS1B	6765	N 541 4
22	3/20/2012 13:39	5423	6386	-963	600-BKGDS1B	6765	
23	4/20/2012 13:44	6803	6386	417	600-BKGDS1B	6765	
24	4/20/2012 13:46	5673	6386	-713	600-BKGDS1B	6765	
25	4/20/2012 13:47	5578	6386	-808	600-BKGDS1B	6765	
26	4/20/2012 13:49	6272	6386	-114	600-BKGDS1B	6765	
27	4/20/2012 13:50	6402	6386	16	600-BKGDS1B	6765	
28	4/20/2012 13:51	6912	6386	526	600-BKGDS1B	6765	
29	4/20/2012 13:52	5753	6386	-633	600-BKGDS1B	6765	
30	5/1/2012 15:31	7184	6386	798	600-BKGDS1B	6765	
31	5/1/2012 15:10	6916	6386	530	600-BKGDS1B	6765	
32	5/31/2012 15:18	4588	6808	-2220	630-BKGDS1B	8141	



TETRATECH EC, INC. Gamma Direct Measurement Report

Site Area: NPR Survey Unit: 8 Class: 1 Area: 767.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

_							
Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	5/31/2012 15:19	4765	6808	-2043	630-BKGDS1B	8141	
34	5/31/2012 15:20	6104	6808	-704	630-BKGDS1B	8141	
35	5/31/2012 15:21	4869	6808	-1939	630-BKGDS1B	8141	
36	5/31/2012 15:22	5190	6808	-1618	630-BKGDS1B	8141	
37	5/31/2012 15:23	4647	6808	-2161	630-BKGDS1B	8141	
38	5/31/2012 15:24	4252	6808	-2556	630-BKGDS1B	8141	
39	5/31/2012 15:25	4421	6808	-2387	630-BKGDS18	8141	
40	5/31/2012 15:27	4532	6808	-2276	630-BKGDS1B	8141	
41	5/31/2012 15:28	3574	6808	-3234	630-BKGDS1B	8141	
42	5/31/2012 15:29	4264	6808	-2544	630-BKGDS1B	8141	
43	5/31/2012 15:30	5725	6808	-1083	630-BKGDS1B	8141	
44	5/31/2012 15:31	2879	6808	-3929	630-BKGDS1B	8141	
45	5/31/2012 15:32	5050	6808	-1758	630-BKGDS1B	8141	
46	5/31/2012 15:34	5312	6808	-1496	630-BKGD51B	8141	
47	5/31/2012 15:35	3551	6808	-3257	630-BKGDS1B	8141	
48	5/31/2012 15:36	5107	6808	-1701	630-BKGDS1B	8141	
49	5/31/2012 15:37	4249	6808	-2559	630-BKGDS18	8141	
50	5/31/2012 15:38	3015	6808	-3793	630-BKGDS1B	8141	
51	5/31/2012 15:39	6079	6808	-729	630-BKGDS1B	8141	0, 0,89,63

Net Gamma cpm Summary Min: -3929

Avg: -1495

Max: 798

St Dev: 1173

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Exposure Rate Measurements

Site Area: NPR Survey Unit: 8 Class: 1 Area: 767,33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area 8ackground 636-BKGDS1

Instrument Serial Number:

115870

Parcel D-1

Instrument Calibration Due Date:

10/10/2012

Reference Area Background

Reference

Location:

Exposure Rate

Identification #:

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	3/20/2012	6	
2	3/20/2012	5	10 100
3	3/20/2012	5	
4	3/20/2012	5	
5	3/20/2012	6	
6	3/20/2012	5	
7	3/20/2012	5	
8	3/20/2012	5	
9	3/20/2012	5	
10	3/20/2012	5	
11	3/20/2012	5	
12	3/20/2012	4	
13	3/20/2012	4	
14	3/20/2012	5	
15	3/20/2012	5	
16	3/20/2012	6	
17	3/20/2012	4	
18	3/20/2012	4	
19	3/20/2012	5	
20	3/20/2012	6	200 - 100 -
21	3/20/2012	4	
22	3/20/2012	5	
23	4/20/2012	6	
24	4/20/2012	6	
25	4/20/2012	6	
26	4/20/2012	5	
27	4/20/2012	6	



TETRATECH EC, INC. Hunters Point Shipyard San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	4/20/2012	6	
29	4/20/2012	5	
30	5/1/2012	7	
31	5/1/2012	6	4630
32	5/31/2012	4	
33	5/31/2012	4	
34	5/31/2012	6	
35	5/31/2012	4	
36	5/31/2012	5	
37	5/31/2012	4	
38	5/31/2012	4	•
39	5/31/2012	4	
40	5/31/2012	4	
41	5/31/2012	4	5. 878 LANCETT
42	5/31/2012	4	
43	5/31/2012	5	
44	5/31/2012	4	
45	5/31/2012	5	
46	5/31/2012	5	
47	5/31/2012	5	
48	5/31/2012	4	
49	5/31/2012	5	
50	5/31/2012	4	
51	5/31/2012	6	

Exposure Rate Summary (μR/hr) Min: 4.00

Avg: 4.94

Max: 7.00

St Dev: 0.81

Chain-of-Custody Record

BFS 02320

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS J. O.F **タビご用る** S 25 6 0 CEPOPZZPC Σ \square \square \square \sum Σ \square Σ $\mathbf{\Sigma}$ TYPE છ Ü છ S Š છ છ જ જ જ ည Project Chemist Phone 949-756-7592 4044-0002 LHVEL Containers Project Number Airbill Number PO Number TIME 3202012 1305 320/2012 13335 320/2012 | 124S 3/20/2012 | 131 S 3202012 137*S* 3/20/2012 | 133 b 320/2012 17,66 320/2012 1320 320/2012 | 1250 32012 12SS 320/2012 1310 DATE Project Name Radiological Site, Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name Heav Holze (SOM 02NPR-S0008-F001-01 02NPR-S0008-F003-01 02NPR-S0008-F007-01 02NPR-S0008-F011-01 02NPR-S0008-F002-01 02NPR-S0008-F004-01 02NPR-S0008-F005-01 02NPR-S0008-F006-01 02NPR-S0008-F008-01 02NPR-S0008-F010-01 02NPR-S0008-F009-01 SAMPLE_ID

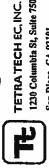
	512 12 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1			
Relinguished by: (signature)	Date 032012	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS SAMPLING COMMENTS	ENTS
Company ASAS		Company C c	Note HELE TES	155
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	7
Сотрану	Time	Сотрапу	3057)	22-82 smars 5
Relinquished by: (signature)	Date	Received by: (signature)	70	
Сотрану	Time	Company	TEMPERATURE SAMPLE CONDITION: COOLER SEAL:	

[2]

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3202012 1340

02NPR-S0008-F012-01



1230 Columbia St, Suite 750

San Diego, CA 92101

Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Sulte 750

San Diego, CA 92101

BFS 02321

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION CABORATORY ID COMMENTS **AUPEA** S 14 6 0 \mathbf{Z} CERSAREO <u>S</u> 2 2 [] \mathbf{Z} 2 [2] 2 Σ TYPE S ည જ જ ည જ જ S જ જ 949-756-7592 404-0002 LEVEL Ž Project Chemist Phone Containers Project Number Airbill Number PO Number 1345 320/2012 1430 TIME 3202012 3550 3/1 | 1 | C 32012012 1420 3202012 1410 3202012 1147S 3202012 1.46S 3202012 135S 3202012 140g 3/20/2012 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name 02NPR-S0008-F013-01 02NPR-S0008-F014-01 02NPR-S0008-F015-01 02NPR-S0008-F016-01 02NPR-S0008-F017-01 02NPR-S0008-F018-01 02NPR-S0008-F019-01 02NPR-S0008-F020-01 02NPR-S0008-F021-01 02NPR-S0008-F022-01 SAMPLE ID

Relinquished by: (signara)e)	Date 32012	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
company ASAS	Time 15:20	Company Cet		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Сомрапу	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (ROR LABORÁTORY)	
Company	Time	Сотрану	LEMTERALUKE: SAMPLE CONDITION: COOLER SEAL:	

Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02385

Project Name Radiological Site Survey	уву	PO Number)er	N/A			<u></u>	SE		LABORATORY NAME	Project Information
Project Location HUNTERS POINT	IT	Project Number	umber	4044-0002	2		<u> </u>	60	A. H.	ONSITE - Curtis & Tompkins, LTD.	Section
Sampler Name JOE CUMNING IMM		Airbill Number	ımber	N/A			< 00 P			LABORATO: Y.D.	
Project Chemist LISA BIENKOWSKI	SKI	Project C	Project Chemist Phone	949-756-7592	7592		CE				
SAMPLE_ID	DATE	TIME	Containers LEVEL	TEAET	TYPE	H < H	-		COMMENTS	LOCATION	SAMPLE ID
02NPR-S0008-F023-01	4/20/2012 1/COO	0001	-		S1	-	<u></u>	뉴			
02NPR-S0008-F024-01	4/20/2012	5001	-		S1		<u>[</u>	금			
02NPR-S0008-F025-01	4/20/2012	1010	1		S1		<u>]</u>	뉘			
02NPR-S0008-F026-01	4/20/2012	5101	1		S1	1	<u> </u>	묶	[
02NPR-S0008-F027-01	4/20/2012	1020	-		S1			H			
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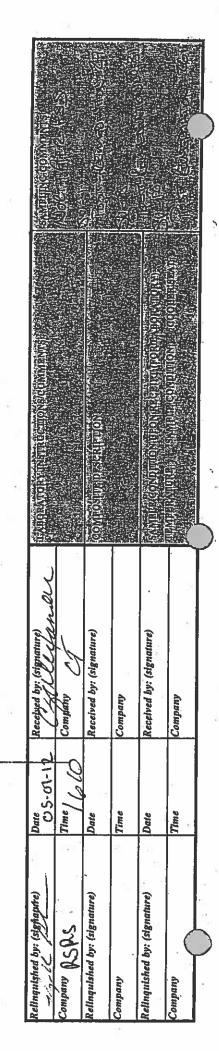
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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRA TECH EC, INC.

San Diego, CA 92101

BFS 02450

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- CHARACTERIZATION 23-29
- POST-REMEDIATION 30-31
- 32 SYSTEMATIC 2 32-51



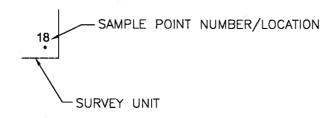
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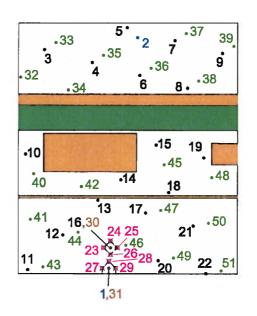


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NORTH PIER WA-32 SURVEY UNIT 08



TETRA TECH EC, IN C
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL (110) CT. TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

Cc:

From: Chiu, George

Sent: Thursday, July 05, 2012 10:50 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich;

Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer,

Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Attachments: 02NPR-S0008 032 to 051 Off-Site Gamma.pdf; 02NPR-S0008 Pu and Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec, strontium, and plutonium results for the systematic samples from North Pier Survey Unit 08.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno. NV 89503

www.radsvcs.com

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TI

Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Wednesday, June 06, 2012 11:42 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from North Pier Survey Unit 08.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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From: Chiu, George

Sent: Wednesday, May 16, 2012 6:46 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the total strontium results for the samples with cesium-137 activity above the release criterion from North Pier Survey Unit 08.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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From: Chiu, George

Sent: Friday, May 11, 2012 9:23 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 08.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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From: Chiu, George

Sent: Thursday, April 26, 2012 4:52 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil);

Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the revised off-site sampling results for samples 01 and 16 from North Pier Survey Unit 08.

Sample points 01 (0.155 pCi/g) and 16 (0.135 pCi/g) have already been remediated due to cesium-137 activity.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503

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From: Chiu, George

Sent: Thursday, April 26, 2012 12:42 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 08.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | **Health Physicist** Office: 415.216.2745 | Cell: **7**14.270.4009

george.chiu@tetratech.com

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From: Chiu, George

Sent: Tuesday, April 17, 2012 9:56 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil);

Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 08

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the bias and systematic sampling results from North Pier Survey Unit 08. Samples 01, 05, and 16 were recounted at the on-site laboratory for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample points 01 (0.247 pCi/g) and 16 (0.154 pCi/g) due to cesium-137 activity reported at the off-site laboratory.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 20, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities in Building 241, the North Pier, and Work Areas #32, #33, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 10.
- The HPNS Team performed Class 1 survey activities for Survey Unit 8. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,650 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were completed in Trench Unit No. 227 (associated with Building 241) by the HPNS Team.
- Backfill activities were initiated in Trench Unit No. 239 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 20, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 27 truckloads of material at RSY4 for processing.
- Following data reviews, the RASO concurred with the staging of ES Unit 0618 pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 63
 - Swipe samples received for Protean counts: 120
 - Air samples received: 12
 - Samples analyzed by gamma spectroscopy: 84
 - Gamma spectroscopy samples recounted: 14
 - Protean swipe samples counted: 120
 - Protean air samples counted: 12
- A total of 277 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 93 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Radiological support was provided to CKY by the HPNS Team during maintenance and landscaping activities at Parcel E-2.
- Radiological support was provided to CE2/Kleinfelder for the transfer of radiologically cleared trash from Buildings 211/253.
- Two outgoing materials and equipment surveys were performed by the HPNS Team.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: March 20, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 507 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 507 Site

 Towed array gamma scan survey activities were performed by the HPNS Team over Class 1 Survey Unit 1.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 21. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 6,576 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 1. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 29 (0.14 pCi/g).
- The HPNS Team provided the RASO with on-site analytical and survey results for the systematic samples collected from Class 1 Survey Unit 18. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 47 (07500SA-S0018-F017-01) with ¹³⁷Cs at 0.1274 pCi/g
 - Sample Point 48 (07500SA-S0018-F048-01) with ¹³⁷Cs at 0.134 pCi/g
 - Sample Point 75 (07500SA-S0018-F075-01) with ¹³⁷Cs at 0.122 pCi/g
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 19. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 16 (07500SA-S0019-F016-01) with ¹³⁷Cs at 0.13 pCi/g
 - Sample Point 22 (07500SA-S0019-F022-01) with ¹³⁷Cs at 0.113 pCi/g
 - Sample Point 23 (07500SA-S0019-F023-01) with ¹³⁷Cs at 0.159 pCi/g

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 324 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

_	07-E36-14-1W	69 linear feet completed
-	07-E36-14-1X	30 linear feet completed
-	07-E36-14-1Y	74 linear feet completed
-	07-E36-14-1Z	70 linear feet completed
-	07-E36-14-8Q	12 linear feet completed

- A total of 243 linear feet of trench (including excavated soil, a manhole, and pipes)
 identified on the design drawings and 12 linear feet not identified on the design drawings
 was completed by the HPNS Team.
- Manhole MH1307 and pipes excavated from trench segment 07-E36-14-1X were placed on plastic pending further activities.
- The HPNS Team investigated trench segment 07-E36-14-1W for the presence of pipe.
 Although depicted on the design drawing, no pipe was found during the investigation.
- A sediment sample was collected from excavated Manhole MH1307 (MH0007) by the HPNS Team and submitted to on-site laboratory for analysis.
- Control access points and perimeter fencing was reconfigured by the HPNS Team to facilitate upcoming sewer removal activities along H Street in Work Area #36.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 20, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of four characterization gamma static measurements were logged with a maximum measurement of 7,840 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 7 A total of two characterization gamma static measurements were logged with a maximum measurement of 6,087 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of seven characterization gamma static measurements were logged with a maximum measurement of 6,911 cpm. In addition, seven soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A total of three characterization gamma static measurements were logged with a maximum measurement of 6,691 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 7, 8, and 10.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 8.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 156 cubic yards of soil from Work Area #32 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	02-C32-00-1D	45 linear feet completed
-	02-C32-00-1E	6 linear feet completed
-	02-C32-00-1F	44 linear feet completed
_	02-C32-00-1J	12 linear feet completed

-	02-C32-00-1K	15 linear feet completed
_	02-C32-00-8D	62 linear feet completed
-	02-C32-00-8H	50 linear feet completed

- A total of 122 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 112 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH946, MH1334, MH1335 and MH1336 along and pipes excavated from trench segments 02-C32-00-1D, -1E, -1F, -1J, -1K, -8D, and -8H were placed on plastic pending further activities.
- The HPNS Team investigated the entire trench segment 02-C32-00-1F for the presence of pipe. Although depicted on the design drawing, no pipe was found during this investigation.
- A total of two sediment samples were collected from excavated Manholes MH946 (02-PCMH946-064-01) and MH1336 (02-PCMH1336-063-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for the excavated manholes and pipe sections detailed in Survey Nos. HPS-PCPIPE-041312-052, and HPS-PCPIPE-041612-053. Because no activity above the release criteria was identified, these 17 manholes and 11 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- Metal rail track encountered during Work Area #32 trench excavations was sized and staged for transfer to the recycling bins near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 20, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed towed array survey activities for ES Units 0686 and 0687 at RSY3.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 13 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Units 0645, 0678, 0681, 0683, 0692, and 0693.
 - ES Units 0659 and 0674 were staged in the stockpile area pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0675 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 36
 - Swipe samples received for Protean counts: 128
 - Air samples received: 10
 - Samples analyzed by gamma spectroscopy: 25
 - Gamma spectroscopy samples recounted: 5
 - Protean swipe samples counted: 40
 - Protean air samples counted: 10
- A total of 188 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

	
Report Date: April 20, 2012	DIALC CEC OF
Report Date: April 20, 2012	RMAC – CTO 07
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Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

• The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of two systematic gamma static measurements were logged with a maximum measurement of 5,807 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team exposed asphalt and continued soil grading and debris removal in preparation for towed array surveys in Class 2 Survey Unit 23.
- Asphalt covering Survey Unit 23 (near Building 505) was removed, scanned, and staged within the Class 2 survey boundaries; no elevated readings were identified during the scanning activities.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 1, 2012	PAD EMAC CTO 000
Report Bate. Way 1, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A post-remediation gamma static measurement was logged at 4,909 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of two post-remediation gamma static measurements were logged with a maximum measurement of 7,183 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A post-remediation gamma static measurement was logged at 8,245 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 11 A total of three characterization gamma static measurements
 were logged with a maximum measurement of 5,612 cpm. In addition, three soil
 samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.
- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class1 Survey Unit 7. Because no activity above the release criteria was identified, remediation followed by post-remediation sample collection will be performed.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated manholes (Survey Nos. HPS-PCPIPE-121211-040 and HPS-PCPIPE-041612-053) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- Backfill activities were initiated for Trench Unit No. 236 by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 01, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of six truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 11 truckloads of material were received for processing.
 - Issued drawing to identify biased and systematic sample collection locations for ES Unit 0685.
 - A total of 5 biased and 18 systematic soil samples were collected from ES Unit 0695 and submitted to the on-site laboratory for analysis.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the following:
 - On-site analytical data for ES Unit 0678 and a request for concurrence to stage the
 material pending receipt of the off-site analytical results prior to transferring to
 the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.
 - On-site analytical data for ES Units 0683 and 0687 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

• Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 30
 - Swipe samples received for Protean counts: 152
 - Air samples received: 13
 - Samples analyzed by gamma spectroscopy: 87
 - Gamma spectroscopy samples recounted: 8
 - Protean swipe samples counted: 23
 - Protean air samples counted: 13
- A total of 323 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 119 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 1, 2012	DMAC CTO 07
Report Date. Way 1, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Asphalt Grid A7 A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm².
 - Survey Unit 22 A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by postremediation sample collection activities will be performed.
- The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class I Survey Unit 14. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:

 - Sample Point 7 (07500SA-S0014-F007-01) with 137 Cs at 0.1183 pCi/g Sample Point 17 (07500SA-S0014-F017-01) with 137 Cs at 0.2425 pCi/g
 - Sample Point 37 (07500SA-S0014-F037-01) with ¹³⁷Cs at 0.3768 pCi/g

• The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-7F	133 linear feet completed
-	07-E36-00-7G	10 linear feet completed
-	07-E36-00-7H	12 linear feet completed
-	07-E36-00-7I	6 linear feet completed
	07-E36-00-8Y	25 linear feet completed

- A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.
- Excavated Manhole MH1244 was placed on plastic pending further activities.
- The HPNS Team provided the RASO with analytical results for the sediment samples collected from Manholes MH1302 and MH1303. Both manholes will be placed in LLRW bins for off-site disposal due to the presence of ¹³⁷Cs contamination as follows:
 - Manhole MH1302 (07-PEMH1302-013-01) with ¹³⁷Cs at 0.2161 pCi/g
 - Manhole MH1303 (07-PEMH1303-014-01) with ¹³⁷Cs at 0.1319 pCi/g
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 17 (0.2726 pCi/g).
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 31, 2012	RAD EMAC – CTO 002
Report Date. Way 31, 2012	KAD EMAC - CTO 002

Overview

The HPNS Team continued field activities for Buildings 211, 231, and 253; the North Pier; and Work Areas #32 through #35. Details of the work activities performed are provided below.

North Pier

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 1 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,227 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,104 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 10 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,110 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 11 A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,599 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 304 (associated with the North Pier) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were continued for Trench Unit No. 238 (associated with Buildings 211, 231, and 253) by the HPNS Team.
- The HPNS Team and the RASO concurred on backfilling of Trench Unit No. 242.
- The HPNS Team issued an updated Parcel C Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 302.
- Site restoration activities were performed by the HPNS Team over backfilled trench units in Work Area #33.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 31, 2012 RMAC – CTO 004	

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 13 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 13 truckloads of material were received for processing.
 - Began transfer of ES Unit 0700 to the stockpile area.
- The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0686 and a request for concurrence to use the materials as trench backfill.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- After evaluating the data, the RASO concurred with the following:
 - Transferring ES Unit 0678 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.
 - Reuse of ES Units 0658, 0685, 0687, and 0688 as trench backfill.

Basewide Support

• One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 140
 - Swipe samples received for Protean counts: 151
 - Air samples received: 13

- Samples analyzed by gamma spectroscopy: 76
- Gamma spectroscopy samples recounted: 13
- Protean swipe samples counted: 20
- Protean air samples counted: 16
- A total of 227 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 71 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 520 Site

• The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 4. Characterization and remediation will be performed due to the presence of ⁹⁰Sr contamination at Sample Point 61 (0.365 pCi/g).

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming survey activities in Class 2 Survey Units 22 and 23.
- The HPNS Team performed Class 1 survey activities for Survey Unit 17. A total of six characterization gamma static measurements were logged with a maximum measurement of 6,340 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the ¹³⁷Cs contaminated samples collected from Class 1 Survey Unit 17; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 17.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36
and transferred the material to both RSY3 and RSY4 for processing. Excavation
activities were performed for the following trench segments:

-	07-E36-00-4D	10 linear feet completed
-	07-E36-00-4E	51 linear feet completed
-	07-E36-00-4F	5 linear feet completed
-	07-E36-00-4G	27 linear feet completed
-	07-E36-38-1U	35 linear feet completed

-	07-E36-38-1V	39 linear feet completed
	07-E36-38-1W	38 linear feet completed
-	07-E36-38-2B	17 linear feet completed
-	07-E36-38-4A	9 linear feet completed
-	07-E36-38-5A	10 linear feet completed

- A total of 241 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Excavated Manholes MH1257, MH1261, MH1266, and MH1267 were placed on plastic pending further activities.
- The HPNS Team investigated trench segment 07-E36-38-1U for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.
- A total of four sediment samples were collected from excavated Manholes MH1257, MH1261, MH1266, and MH1267 (MH0016 through MH0019) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Survey activities were performed by the HPNS Team for pipe sections removed from trench segment 07-E36-39-1R (Survey No. HPS-PEPIPE-053112-048). During the survey activities, a total of six swipe samples were collected and submitted to the on-site laboratory for analysis.
- Survey activities were performed by the HPNS Team on concrete pipe bedding material removed from Trench Unit No. 307 (Survey No. HPS-A-TU307-001). During the survey activities, a total of eight swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 301.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

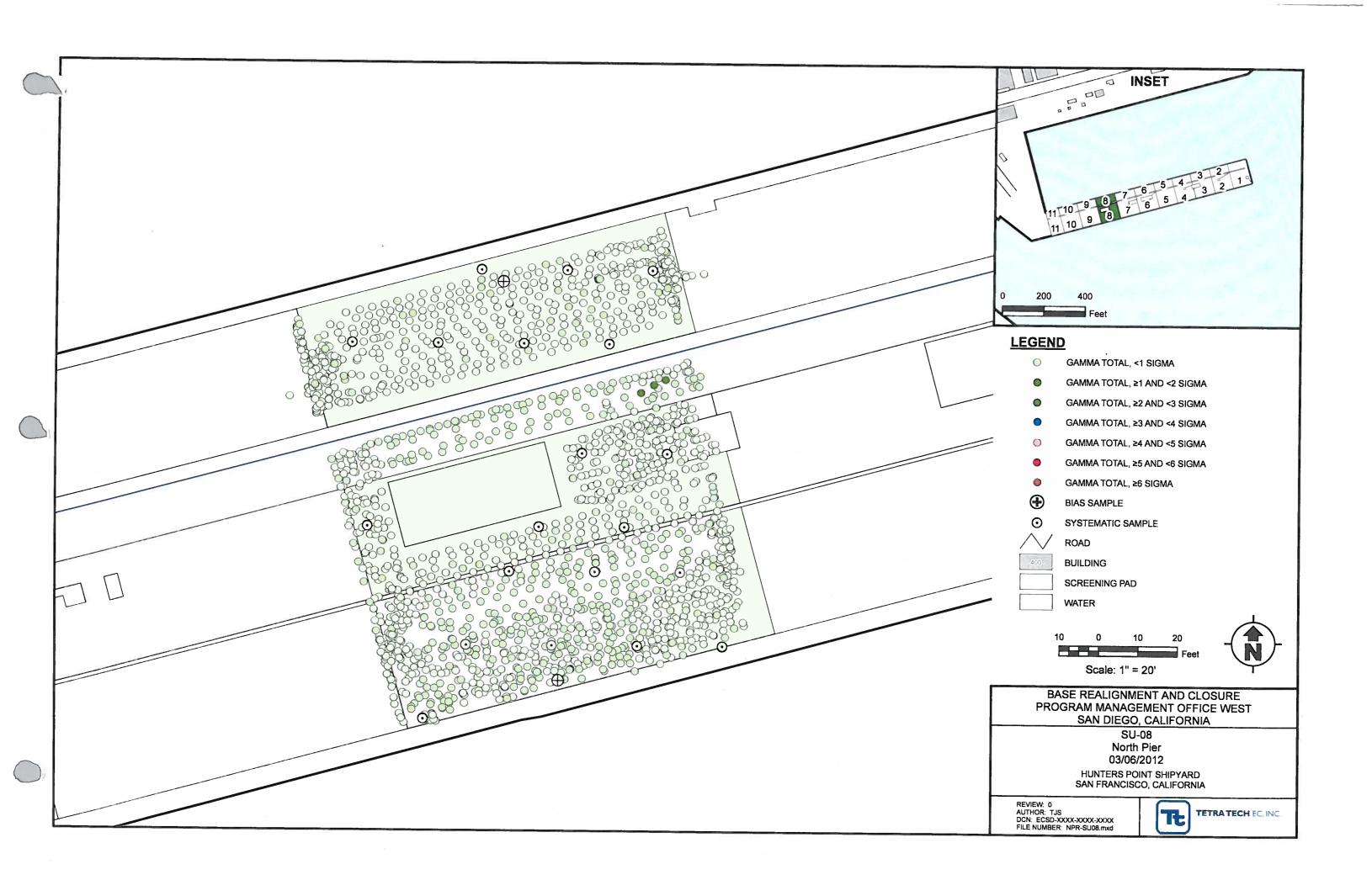
Internal Draft Radiological Removal Action Completion Report

Area	Survey	Sample	Sample	Sample	Date	COC Radiological
	Unit	Point	Туре	ID	Collected	Technician
NPR	8	1	Biased	02NPR-S0008-F001-01	20-Mar-12	Ray Roberson
NPR	8	2	Biased	02NPR-S0008-F002-01	20-Mar-12	Ray Roberson
NPR	8	3	Systematic	02NPR-S0008-F003-01	20-Mar-12	Ray Roberson
NPR	8	4	Systematic	02NPR-S0008-F004-01	20-Mar-12	Ray Roberson
NPR	8	5	Systematic	02NPR-S0008-F005-01	20-Mar-12	Ray Roberson
NPR	8	6	Systematic	02NPR-S0008-F006-01	20-Mar-12	Ray Roberson
NPR	8	7	Systematic	02NPR-S0008-F007-01	20-Mar-12	Ray Roberson
NPR	8	8	Systematic	02NPR-S0008-F008-01	20-Mar-12	Ray Roberson
NPR	8	9	Systematic	02NPR-S0008-F009-01	20-Mar-12	Ray Roberson
NPR	8	10	Systematic	02NPR-S0008-F010-01	20-Mar-12	Ray Roberson
NPR	8	11	Systematic	02NPR-S0008-F011-01	20-Mar-12	Ray Roberson
NPR	8	12	Systematic	02NPR-S0008-F012-01	20-Mar-12	Ray Roberson
NPR	8	13	Systematic	02NPR-S0008-F013-01	20-Mar-12	Ray Roberson
NPR	- 8	14	Systematic	02NPR-S0008-F014-01	20-Mar-12	Ray Roberson
NPR	8	15	Systematic	02NPR-S0008-F015-01	20-Mar-12	Ray Roberson
NPR	8	16	Systematic	02NPR-S0008-F016-01	20-Mar-12	Ray Roberson
NPR	8	17	Systematic	02NPR-S0008-F017-01	20-Mar-12	Ray Roberson
NPR	8	18	Systematic	02NPR-S0008-F018-01	20-Mar-12	Ray Roberson
NPR	8	19	Systematic	02NPR-S0008-F019-01	20-Mar-12	Ray Roberson
NPR	8	20	Systematic	02NPR-S0008-F020-01	20-Mar-12	Ray Roberson
NPR	8	21	Systematic	02NPR-S0008-F021-01	20-Mar-12	Ray Roberson
NPR	8	22	Systematic	02NPR-S0008-F022-01	20-Mar-12	Ray Roberson
NPR	8	23	Characterization	02NPR-S0008-F023-01	20-Apr-12	Joe Cunningham
NPR	8	24	Characterization	02NPR-S0008-F024-01	20-Apr-12	Joe Cunningham
NPR	8	25	Characterization	02NPR-S0008-F025-01	20-Apr-12	Joe Cunningham
NPR	8	26	Characterization	02NPR-S0008-F026-01	20-Apr-12	Joe Cunningham
NPR	8	27	Characterization	02NPR-S0008-F027-01	20-Apr-12	Joe Cunningham
NPR	8	28	Characterization	02NPR-S0008-F028-01	20-Apr-12	Joe Cunningham
NPR	8	29	Characterization	02NPR-S0008-F029-01	20-Apr-12	Joe Cunningham
NPR	8	30	Post-Remediation	02NPR-S0008-F030-01	01-May-12	Ray Roberson
NPR	8	31	Post-Remediation	02NPR-S0008-F031-01	01-May-12	Ray Roberson
NPR	8	32	Systematic	02NPR-S0008-F032-01	31-May-12	Ray Roberson
NPR	8	33	Systematic	02NPR-S0008-F033-01	31-May-12	Ray Roberson
NPR	8	. 34	Systematic	02NPR-S0008-F034-01	31-May-12	Ray Roberson
NPR	8	35	Systematic	02NPR-S0008-F035-01	31-May-12	Ray Roberson
NPR	8	36	Systematic	02NPR-S0008-F036-01	31-May-12	Ray Roberson
NPR	8	37	Systematic	02NPR-S0008-F037-01	31-May-12	Ray Roberson
NPR	8	38	Systematic	02NPR-S0008-F038-01	31-May-12	Ray Roberson
NPR	8	39	Systematic	02NPR-S0008-F039-01	31-May-12	Ray Roberson
NPR	8	40	Systematic	02NPR-S0008-F040-01	31-May-12	Ray Roberson
NPR	8	41	Systematic	02NPR-S0008-F041-01	31-May-12	Ray Roberson
NPR	8	42	Systematic	02NPR-S0008-F042-01	31-May-12	Ray Roberson
NPR	8	43	Systematic	02NPR-S0008-F043-01	31-May-12	Ray Roberson
NPR	8	44	Systematic	02NPR-S0008-F044-01	31-May-12	Ray Roberson
NPR	8	45	Systematic	02NPR-S0008-F045-01	31-May-12	Ray Roberson
NPR	8	46	Systematic	02NPR-S0008-F046-01	31-May-12	Ray Roberson
NPR	8	47	Systematic	02NPR-S0008-F047-01	31-May-12	Ray Roberson
NPR	8	48	Systematic	02NPR-S0008-F048-01	31-May-12	Ray Roberson
NPR	8	49	Systematic	02NPR-S0008-F049-01	31-May-12	Ray Roberson
NPR	8	50	Systematic	02NPR-S0008-F050-01	31-May-12	Ray Roberson
NPR	8	51	Systematic	02NPR-S0008-F051-01	31-May-12	Ray Roberson
Highlig	hted Activ	itios: Da 1		e) & 1 375 (Off-site) · Cs-13		0445 4 405 51 044

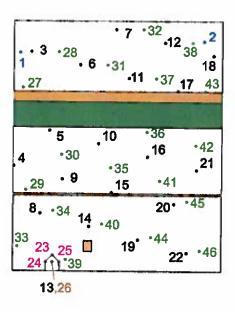
	On-Site Laboratory (pCi/g)				
K-40	Ra-226	Cs-137	Bi-214	Pb-214	
10.23	0.4935	0.09523	0.3345	0.3563	
15.59	0.4919	0.008754	0.4062	0.3538	
17.79	0.7996	0.02298	0.3357	0.5055	
22.02	1.142	0.00361	0.3574	0.586	
22.48	0.86	0	0.4879	0.5993	
15.63	0.753	0.003367	0.3858	0.4654	
20.89	1.062	0.03326	0.5734	0.7284	
10.85	0.898	0	0.2166	0.3062	
19.75	0.4181	0.01431	0.5938	0.6163	
6.647	0.3868	0.003048	0.3405	0.2864	
14.76	0.7004	0.01891	0.5639	0.5523	
7.6	0.4106	0.01558	0.3676	0.3642	
7.446	0.5572	0.005382	0.1316	0.1788	
13.7	0.5567	0.0002504	0.461	0.3541	
9.2	1.372	0	0.1433	0.3839	
10.18	0.521	0.1015	0.3462	0.3982	
6.148	0.2883	0	0.1326	0.1466	
9.668	1.051	0.01413	0.4937	0.3884	
10.33	0.5413	-0.01	0.593	0.6043	
10.05	0.7987	0.03273	0.1227	0.3978	
6.577	0.218	0.03881	0.3036	0.324	
6.708	0.4742	-0.003141	0.1273	0.2826	
8.291	0.629	0.0218	0.3592	0.4075	
9.068	0.2572	-0.003712	0.1159	0.2874	
8.288	0.257	0.00955	0.04536	0.3301	
8.834	0.2725	0.0001099	0.06355	0.2194	
9.65	0.5286	0.04645	0.3001	0.3547	
8.243	0.3939	0.05781	0.3784	0.3605	
9.473	-0.2305	0.02772	0.3565	0.3035	
12.13	0.1902	0.008937	0.3832	0.454	
10.58	0.4347	-0.007061	0.4676	0.5156	
1.937	0.09594	-0.001212	0.04871	0.1684	
0.7828	-0.1865	0.01881	0.08627	0.08277	
1.061	0.2093	0.009134	-0.0001145	0.1194	
0.9234	0.2225	0	0.1188	0.08785	
2.004	0.4195	-0.004758	0.04809	0.0725	
1.132	0.2549	-0.005983	0.2273	0.1908	
0.6315	0.1172	-0.0004218	0.1033	0.06921	
1.258	0.2758	-0.0002623	0.05634	0.1785	
1.49	-0.07547	0.0003182	0.0362	0.1261	
0.9979	0.4165	0	0.07761	0.1752	
0.9346	0.1941	-0.004913	0.09914	0.2	
1.54	-0.01456	-0.00313	0.1027	0.05463	
1.542	0	0	0.06731	0.1201	
1.238	0.01633	0	0.08637	0.2584	
1.464	0	0.001993	0.07479	0.1781	
1.131	0.3498	0.003476	0.09405	0.03624	
0.9271	0.3262	-0.002614	0.06878	0.1388	
1.481	0.2473	0	0.1782	0.09971	
1.472	0.4613	-0.006526	0.1717	0.1271	
1.183	0.3082	0	0.1457	0.2437	

Off-Site Laboratory (pCi/g) K-40 Cs-137 Bi-214 Pb-214 10.1 0.29 0.155 0.29 0.311 9.48 0.448 0.135 0.448 0.452 0.944 0.292 0 0.292 0.284 1.3 0.174 -0.000734 0.174 0.323 1.38 0.179 0.179 0 0.215 1.25 0.213 0 0.213 0.187 1.73 0.262 -0.0142 0.262 0.192 0.707 0.00926 0.00795 0.00926 0.174 1.51 0.188 0.000663 0.188 0.251 1.57 0.0812 -0.00777 0.0812 0.232 1.15 0.316 . -0.0191 0.316 0.16 1.61 0.276 0.00618 0.276 0.24 1.23 0.154 0.000856 0.154 0.241 0.738 0.0457 -0.00545 0.0457 0.172 1.19 0.101 0.00828 0.101 0.0914 1.56 0.216 0.00978 0.216 0.143 1.56 0.0449 0.0147 0.0449 0.265 0.48 0.316 0.00633 0.316 0.291 1.51 0.0728 0.00455 0.0728 0.24 1.66 0.337 -0.0244 0.337 0.26 1.33 0.231 0.00316 0.231 0.316 1.26 0.201 0.201 0.254

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)







SU-10

CLASS 1

793,91 m² (8545.63 ft²)

LEGEND:

- 1 BIASED 1-2
- 3 SYSTEMATIC 1 3-22
- 23 CHARACTERIZATION 23-25
- 26 POST—REMEDIATION 26
- 32 SYSTEMATIC 2 27-46

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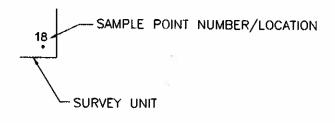
AREAS PREVIOUSLY REMEDIATED



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CONCRETE



RECORD COPY

SCALE 1,40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 10





Site Area: NPR Survey Unit: 10 Class: 1 Area: 793.91 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

	- 1-2	NAME OF THE PERSON OF THE PERS	a process		7.5		
Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma	ID*	Investigation	
	2/22/22/2			СРМ		Level (cpm)	
1	3/22/2012 9:36	5310	6386	-1076	600-BKGDS1B	6765	
2	3/22/2012 9:37	6505	6386	119	600-BKGDS1B	6765	
3	3/22/2012 9:39	5724	6386	-662	600-BKGDS1B	6765	
4	3/22/2012 9:40	3956	6386	-2430	600-BKGDS1B	6765	
5	3/22/2012 9:42	6197	6386	-189	600-BKGDS1B	6765	
6	3/22/2012 9:43	5504	6386	-882	600-BKGDS1B	6765	
7	3/22/2012 9:45	5490	6386	-896	600-BKGDS1B	6765	
8	3/22/2012 9:46	3237	6386	-3149	600-BKGDS1B	6765	
9	3/22/2012 9:48	4927	6386	-1459	600-BKGDS1B	6765	
10	3/22/2012 9:49	3999	6386	-2387	600-BKGDS1B	6765	
11	3/22/2012 9:51	4169	6386	-2217	600-BKGDS1B	6765	
12	3/22/2012 9:52	5999	6386	-387	600-BKGDS1B	6765	
13	3/22/2012 9:54	5884	6386	-502	600-BKGDS1B	6765	
14	3/22/2012 9:55	3343	6386	-3043	600-BKGDS1B	6765	
15	3/22/2012 9:57	3716	6386	-2670	600-BKGDS1B	6765	
16	3/22/2012 9:58	3617	6386	-2769	600-BKGDS1B	6765	
17	3/22/2012 9:59	5726	6386	-660	600-BKGDS1B	6765	
18	3/22/2012 10:01	5881	6386	-505	600-BKGDS1B	6765	78344 E8752 E8
19	3/22/2012 10:03	3359	6386	-3027	600-BKGDS1B	6765	
20	3/22/2012 10:04	3560	6386	-2826	600-BKGDS1B	6765	
21	3/22/2012 10:06	3779	6386	-2607	600-BKGDS1B	6765	
22	3/22/2012 10:07	5696	6386	-690	600-BKGDS1B	6765	
23	4/20/2012 13:40	6962	6386	576	600-BKGDS1B	6765	
24	4/20/2012 13:41	6435	6386	49	600-BKGDS1B	6765	
25	4/20/2012 13:42	6381	6386	-5	600-BKGDS1B	6765	RC (Chery)
26	5/1/2012 15:07	8245	6386	1859	600-BKGDS1B	6765	
27	5/31/2012 15:41	4881	6808	-1927	630-BKGDS1B	8141	No.
28	5/31/2012 15:42	5694	6808	-1114	630-BKGDS1B	8141	In a second
29	5/31/2012 15:43	3301	6808	-3507	630-BKGDS1B	8141	
30	5/31/2012 15:45	3533	6808	-3275	630-BKGDS1B	8141	
31	5/31/2012 15:46	4865	6808	-1943	630-BKGDS1B	8141	
32	5/31/2012 15:47	6110	6808	-698	630-BKGDS1B	8141	
				-		_	



Area: 793.91 m² **Count Time: 1 min Survey Unit: 10** Class: 1 Site Area: NPR

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID*	Investigation Level (cpm)	
		CPM	CPM	CPM		T	
33	5/31/2012 15:48	3673	6808	-3135	630-BKGDS1B	8141	
34	5/31/2012 15:49	3438	6808	-3370	630-BKGDS1B	8141	
35	5/31/2012 15:50	3035	6808	-3773	630-BKGDS1B	8141	1,293 0,394
36	5/31/2012 15:51	4766	6808	-2042	630-BKGDS1B	8141	
37	5/31/2012 15:52	5604	6808	-1204	630-BKGDS1B	8141	Tuniza i a su
38	5/31/2012 15:53	5462	6808	-1346	630-BKGDS1B	8141	
39	5/31/2012 15:55	5240	6808	-1568	630-BKGDS1B	8141	
40	5/31/2012 15:56	3397	6808	-3411	630-BKGDS1B	8141	
41	5/31/2012 15:57	4600	6808	-2208	630-BKGDS1B	8141	
42	5/31/2012 15:58	3771	6808	-3037	630-BKGDS1B	8141	
43	5/31/2012 15:59	3880	6808	-2928	630-BKGDS1B	8141	
44	5/31/2012 16:00	3228	6808	-3580	630-BKGDS1B	8141	
45	5/31/2012 16:02	3839	6808	-2969	630-BKGD51B	8141	
46	5/31/2012 16:03	3103	6808	-3705	630-BKGDS1B	8141	

Net Gamma cpm Summary Min: -3773

Avg: -1808

Max: 1859

St Dev: 1350

Readings $> 3\sigma$ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements > 3σ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area Background Report

Site Area: NPR Survey Unit: 10 Class: 1 Area: 793.91 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 600

Instrument/Probe Type: 2350-1 / 44-10

instrument Serial #: 95360

Probe Serial #: 192597

Calibration Due Date: 6/8/2012

Reference Area Background Identification #: 600-BKGDS1B Count Time (minutes): 1.00

A PROPERTY OF	A CONTRACTOR OF THE PARTY OF TH	
Rdg#	Date and Time	Gross Gamma CPM
1	09/08/2011 13:56	6403
2	09/08/2011 13:57	6371
3	09/08/2011 13:58	6445
4	09/08/2011 13:59	6476
5	09/08/2011 13:01	6384
6	09/08/2011 13:04	6441
7	09/08/2011 13:09	6015
8	09/08/2011 13:11	6189
9	09/08/2011 13:13	6336
10	09/08/2011 13:14	6452
11	09/08/2011 13:15	6517
12	09/08/2011 13:16	6495
13	09/08/2011 13:17	6459
14	09/08/2011 13:18	6549
15	09/08/2011 13:19	6418
16	09/08/2011 13:20	6428
17	09/08/2011 13:22	6278
18	09/08/2011 13:32	6226
19	09/08/2011 13:33	6377
20	09/08/2011 13:34	6456

Gamma Mean Background (cpm):

6386

Standard Deviation:

127

Gamma 3σ Investigation

6765

Level (cpm):



Gamma Instrument and Reference Area Background Report

Site Area: NPR Survey Unit: 10 Class: 1 Area: 793.91 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 630

instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588

Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-BKGDS1B Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	05/23/2012 13:42	6777 .
2	05/23/2012 13:43	6444
3	05/23/2012 13:44	7288
4	05/23/2012 13:45	7319
5	05/23/2012 13:47	6473
6	05/23/2012 13:48	6801
7	05/23/2012 13:49	7364
8	05/23/2012 13:50	7091
9	05/23/2012 13:51	6567
10	05/23/2012 13:53	5952
11	05/23/2012 13:55	6739
12	05/23/2012 13:56	6778
13	05/23/2012 13:58	6925
14	05/23/2012 13:59	6047
15	05/23/2012 14:00	6022
16	05/23/2012 14:02	7217
17	05/23/2012 14:03	6857
18	05/23/2012 14:05	7209
19	05/23/2012 14:07	7323
20	05/23/2012 14:08	6960

Gamma Mean Background (cpm): 6808

Standard Deviation: 444

Gamma 3σ Investigation 8141

Level (cpm):



TETRATECH EC, INC. Hunters Point Shipyard San Francisco, CA Exposure Rate Measurements Fan Francisco, CA

identification #:

Site Area: NPR Survey Unit: 10 Class: 1 Area: 793.91 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 636-BKGDS1

Instrument Serial Number:

115870

Reference Area Background

Parcel D-1 Reference

Instrument Calibration Due Date:

10/10/2012

Location: **Exposure Rate**

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	3/22/2012	6	
2	3/22/2012	7	
3	3/22/2012	6	
4	3/22/2012	4	
5	3/22/2012	5	
6	3/22/2012	7	
7	3/22/2012	6	
8	3/22/2012	4	
9	3/22/2012	5	
10	3/22/2012	5	
11	3/22/2012	6	
12	3/22/2012	6	
13	3/22/2012	6	
14	3/22/2012	4	
15	3/22/2012	5	
16	3/22/2012	5	
17	3/22/2012	6	
18	3/22/2012	6	
19	3/22/2012	4	
20	3/22/2012	4	
21	3/22/2012	5	
22	3/22/2012	5	
23	4/20/2012	7	
24	4/20/2012	6	
25	4/20/2012	6	
26	5/1/2012	7	
27	5/31/2012	4	

TETR Hunter San Fra

TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (μR/hr)	Comments
28	5/31/2012	5	
29	5/31/2012	4	
30	5/31/2012	4	
31	5/31/2012	4	
32	5/31/2012	4	
33	5/31/2012	6	
34	5/31/2012	4	
35	5/31/2012	4	
36	5/31/2012	4	
37	5/31/2012	4	
38	5/31/2012	5	
39	5/31/2012	5	
40	5/31/2012	5	
41	5/31/2012	4	
42	5/31/2012	4	
43	5/31/2012	4	
44	5/31/2012	4	
45	5/31/2012	4	
46	5/31/2012	4	N.O. 84 (1995)

Exposure Rate

Min: 4.00

Summary (μR/hr) = Avg: Δ

Avg: 4.98

Max: 7.00

St Dev: 1.02

Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRA TECH EC, INC.

San Diego, CA 92101

BFS 02332

Project Information Section SAMPLE ID ONSITE - Curtis & Tompkins, LTD. LABORATORY NAMB LOCATION LABORATORYD COMMENTS 7 A H P L A 宣 S 24 5 0 の内がなるのはなり 2 D 2 [2] [2] D TYPE છ ည રુ ŝ જ S જ જ ŝ જ ŝ ည 949-756-7592 4044-0002 LEVEL Ϋ́ Project Chemist Phone Containers Project Number Airbill Number PO Number 3222012 142D TIME SCHI | ZLOZIZZE 37272012 KH CO 3222012 1405 37222012 |141O 3222012 1430 37272012 | 144O Shhl 210212218 05H1 210212218 SSH/ ZIOZIZIE 3/11/ DISZEZE 3222012 1435 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name RAU ROSY-REON 02NPR-S0010-F001-01 02NPR-S0010-F002-01 02NPR-S0010-F003-01 02NPR-S0010-F004-01 02NPR-S0010-F005-01 02NPR-S0010-F006-01 02NPR-S0010-F007-01 02NPR-S0010-F008-01 02NPR-S0010-F010-01 02NPR-S0010-F012-01 02NPR-S0010-F009-01 02NPR-S0010-F011-01 SAMPLE_ID

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3-12-12 Received by: (signature) LABORATORY INSTRUCTIONS/COMMENTS	Time 15:56 Company C & T	Received by: (signature) COMPOSITE, DESCRIPTION	Сотрапу	ō	Company SAMI	
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02333

Project Name		PO Number	čer	25.3				Ľ		LABORATORY NAME	21.7
Kadlological Site Survey	rvey			N/A			_	_			Project Information
Project Location HUNTERS POINT		Project Number	umber	4044-0002	Ž	<u> </u>	M M M M M			ONSTTE - Curtis & Tomnkine, LTD	Section
Sampler Name KAY KOBERSON		Airbill Number	ımber	N/A			A & a	∢		LABORATORY ID	-8-1
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	949-756-7592	7592	Γ	4 M C				
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	h<+	1 1	-	COMMENTS	LOCATION	SAMPLE ID
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re)	Dare	leceived by: (signature)	COMPOSITE DESCRIPTION
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Relinquished by: (signature)	Date	Received by: (signature)	lā
Сотрапу	Time	Company	L'EMPERATIONE: SAMPLE CONDITION; COOLER SEAL.

TETRATECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02384

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS **ム 1 2 1 4** S 2 6 0 2 女が対するな はばな 2 Σ > Σ Σ TYPE ડ က် ည ည ည က် 949-756-7592 4044-0002 LEVEL Š N/A Project Chemist Phone Containers Project Number Airbill Number PO Number TIME 4/20/2012 10.SO 412012012 1045 412012012 1055 4/20/2012 1/040 110 4/20/2012 | 11 15 4/20/2012 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name JoE Caramagnam 02NPR-S0001-F023-01 02NPR-S0001-F024-01 02NPR-S0001-F025-01 02NPR-S0001-F026-01 02NPR-S0007-F023-01 02NPR-S0007-F024-01 SAMPLE_ID

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4/20/2012

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02NPR-S0010-F023-01

4/20/2012 1135

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Company 166 B	11	١, ١	· · · · · · · · · · · · · · · · · · ·	Water Raid Ras
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Сотрану	Time	Сошрану	TEMPERATURE: SAMPLE CONDITION; COOLER SEAL:	CHALACISCOPHICS (1) 16
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TETRA TECH EC, INC. 1230 Columbia St, Sulte 750

San Diego, CA 92101

BFS 02397

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION COMMENTS マヨマコマ H 8 × 6 0 のよればよらずばら S TYPE S S ŝ S 949-756-7592 4044-0002 Containers LEVEL Ş ۲ Project Chemist Phone Airbill Number Project Number PO Number TIME 5/1/2012 1530 5/1/2012 1515 5/12012 1525 5112012 1520 DATE Project Name Radiological Site Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name
Now No Oct SON. 02NPR-S0010-F026-01 02NPR-S0001-F027-01 02NPR-S0008-F030-01 02NPR-S0008-F031-01 SAMPLE_ID

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Company	Time	Сотрану	The Mark Lands and the Lands of the Control of the
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TETRA TECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

BFS 02451

COMMENTS COMMENTS LOCATION LABORATORY D LOCATION LO	Project Name Radiological Site Survey	Irvey	PO Number	ber	Α/N			<u>3, 6</u>	۷ ⊦	::	LABORATORY NAME	Designation
	Project Location HUNTERS POIL	Ę	Project N	lumber	4044-000	<u>N</u>		ZZ	1 A H		ONSITE - Curtis &	roject information
Froject Chemist Phone Agh-756-7592 E	Sampler Name	11)	Airbill N	umber	¥ X		T	401	<		LABORATORY ID	District Model
DATE TIME Containers LEVEL TYPE	Project Chemist LISA BIENKOW	SKI	Project C	hemist Phor	e 949-756-	7592	T -	- R C	·	1		
5312012 /356 1 S1	SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	H < H	-	 	COMMENTS	LOCATION	SAMPLE ID
56312012 1400 1 S1	02NPR-S0010-F027-01	5/31/2012		-		S1	 -	N N				
563 12012 1405 1 S1 S2 S1 S2 S1	02NPR-S0010-F028-01.	5/31/2012		-		51						
5312012 /4/0 1 \$1	02NPR-S0010-F029-01	5/31/2012		+		S					:	
5312012 /4/5 1 S1	02NPR-S0010-F030-01	5/31/2012	0/6/	-		S.						
5312012 1/40 1 S1 K2 C C C C C C C C C C C C C	02NPR-S0010-F031-01	5/31/2012	5161	-		S		L				
5312012 1425 1 S1	02NPR-S0010-F032-01	5/31/2012		-		S1						
5312012 / 450 1 S1 K7 0 5312012 / 465 1 S1 K7 0 5312012 / 560 1 S1 K7 0 5312012 / 565 1 S1 K7 0 5312012 / 565 1 S1 K7 0	02NPR-S0010-F033-01	5/31/2012		-		S1				q.		
5312012 1/63 1 \$1	02NPR-S0010-F034-01	5/31/2012		-		SI	(2)					
5312012 1/560 1 S1 K2 I III 5312012 1/505 1 S1 K2 III III	02NPR-S0010-F035-01		1.85	-		S					83	
5312012 /Sos 1 S1 S1 S1 S1 S1 S31 S1	02NPR-S0010-F036-01		1560	-		હ	<u> </u>					
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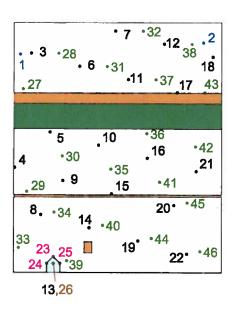
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Relinguished by: (signature)		Received by: (signature)	COMPOSITE DESCRIPTION	SOF (0
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

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SU-10

CLASS 1

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LEGEND:

- 1 BIASED 1-2
- 3 SYSTEMATIC 1 3-22
- 23 CHARACTERIZATION 23-25
- 26 POST-REMEDIATION 26
- 32 SYSTEMATIC 2 27-46



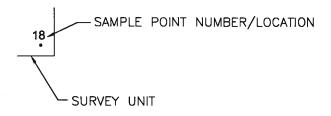
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HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 10



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From:

Chiu. George

Sent:

Wednesday, July 11, 2012 4:22 PM

To:

Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc:

Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer,

Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject:

HPS Data - North Pier Survey Unit 10

Attachments:

02NPR-S0010 027 to 046 Off-Site Gamma.pdf; 02NPR-S0010 Pu and Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec, strontium, and plutonium results for the systematic samples from North Pier Survey Unit 10.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Wednesday, June 06, 2012 11:44 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 10

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from North Pier Survey Unit 10. Samples 33, 33DUP, 36, and 39 were recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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TI

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From: Chiu, George

Sent: Friday, May 11, 2012 9:24 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil);

Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti;

Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 10

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 10. Sample 26 was recounted for a longer duration at the direction of the laboratory manager.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

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From: Chiu, George

Sent: Thursday, April 26, 2012 4:52 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 10

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample with cesium-137 activity above the release criterion from North Pier Survey Unit 10.

George Chiu | Health Physicist Office: 415,216.2745 | Cell: 714.270,4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 00 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

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From: Chiu, George

Sent: Thursday, April 26, 2012 12:42 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 10

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 10.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist
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george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George

Sent: Tuesday, April 03, 2012 12:57 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 10

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from North Pier Survey Unit 10. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 13 (0.1385 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 22, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #34, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed Class 1 survey activities for Survey Unit 10. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,504 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The RSOR provided the HPNS Team with survey results for wooden railroad ties
 detailed in Survey Nos. HPS-A-NPR-029 and HPS-A-NPR-030. Because no activity
 above the release criteria was identified, the 72 items were released for transfer to the
 recycling stockpiles.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Units 9 and 10.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 242 by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were initiated in Trench Unit No. 237 by the HPNS Team.
- Backfill activities were completed in Trench Unit No. 239 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 22, 2012	RMAC - CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of three truckloads of material were received for processing.
 - ES Unit 0660 was staged in the stockpile area pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 57
 - Swipe samples received for Protean counts: 52
 - Air samples received: 8
 - Samples analyzed by gamma spectroscopy: 64
 - Gamma spectroscopy samples recounted: 12
 - Protean swipe samples counted: 36
 - Protean air samples counted: 8
- A total of 266 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 81 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Radiological support was provided to CKY by the HPNS Team during maintenance and landscaping activities in Parcel E-2.
- Radiological support was provided to Shaw Group for equipment surveys.
- Four outgoing materials and equipment surveys were performed by the HPNS Team.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: March 22, 2012		
RWAC - CTO 07	Report Date: March 22, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities the Building 508 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided below.

Building 508 Site

Towed array gamma scan surveys were completed for Class 1 Survey Unit 1.

Shacks 79 and 80

The HPNS Team issued record drawings to identify locations for the post-remediation samples collected from Class 1 Survey Unit 1.

500 Series Area

The HPNS Team performed towed array gamma scan surveys over the H Street asphalt covering Class 1 Survey Unit 11.

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A total of four characterization gamma static measurements were logged with a maximum measurement of 4,701 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 18 !A total of two characterization gamma static measurements were logged with a maximum measurement of 7,346 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 19 !A total of eleven characterization gamma static measurements were logged with a maximum measurement of 6,709 cpm. In addition, eleven soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 18, and 19.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 20, 2012	RAD EMAC - CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A total of four characterization gamma static measurements were logged with a maximum measurement of 7,840 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 7 !A total of two characterization gamma static measurements were logged with a maximum measurement of 6,087 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 8 !A total of seven characterization gamma static measurements were logged with a maximum measurement of 6,911 cpm. In addition, seven soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 10 !A total of three characterization gamma static measurements were logged with a maximum measurement of 6,691 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 7, 8, and 10.

The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 8.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 156 cubic yards of soil from Work Area #32 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

7	02-C32-00-1D	45 linear feet completed
-	02-C32-00-1E	6 linear feet completed
_	02-C32-00-1F	44 linear feet completed
-	02-C32-00-1J	12 linear feet completed

-	02-C32-00-1K	15 linear feet completed
-	02-C32-00-8D	62 linear feet completed
-	02-C32-00-8H	50 linear feet completed

A total of 122 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 112 linear feet not identified on the design drawings were completed by the HPNS Team.

Manholes MH946, MH1334, MH1335 and MH1336 along and pipes excavated from trench segments 02-C32-00-1D, -1E, -1F, -1J, -1K, -8D, and -8H were placed on plastic pending further activities.

The HPNS Team investigated the entire trench segment 02-C32-00-1F for the presence of pipe. Although depicted on the design drawing, no pipe was found during this investigation.

A total of two sediment samples were collected from excavated Manholes MH946 (02-PCMH946-064-01) and MH1336 (02-PCMH1336-063-01) by the HPNS Team and submitted to the on-site laboratory for analysis.

The RSOR provided the HPNS Team with survey results for the excavated manholes and pipe sections detailed in Survey Nos. HPS-PCPIPE-041312-051, HPS-PCPIPE-041312-052, and HPS-PCPIPE-041612-053. Because no activity above the release criteria was identified, these 17 manholes and 11 pipe sections were released for transfer to the recycling stockpiles near Building 411.

Metal rail track encountered during Work Area #32 trench excavations was sized and staged for transfer to the recycling bins near Building 411.

A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 20, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team performed towed array survey activities for ES Units 0686 and 0687 at RSY3.

The HPNS Team performed the following RSY4 processing activities:

A total of 13 truckloads of material were received for processing.

Towed array survey activities were performed for ES Units 0645, 0678, 0681, 0683, 0692, and 0693.

ES Units 0659 and 0674 were staged in the stockpile area pending receipt of the off-site analytical results.

Began transfer of ES Unit 0675 to the stockpile area.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 36

Swipe samples received for Protean counts: 128

Air samples received: 10

Samples analyzed by gamma spectroscopy: 25

Gamma spectroscopy samples recounted: 5

Protean swipe samples counted: 40

Protean air samples counted: 10

A total of 188 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 20, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of two systematic gamma static measurements were logged with a maximum measurement of 5,807 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

The HPNS Team exposed asphalt and continued soil grading and debris removal in preparation for towed array surveys in Class 2 Survey Unit 23.

Asphalt covering Survey Unit 23 (near Building 505) was removed, scanned, and staged within the Class 2 survey boundaries; no elevated readings were identified during the scanning activities.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

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Report Date: May 1, 2012 RAD EMAC - CTO 002	

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #34. Details of the work activities performed are provided in the sections below.

North Pier

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A post-remediation gamma static measurement was logged at 4,909 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.

Survey Unit 8 !A total of two post-remediation gamma static measurements were logged with a maximum measurement of 7,183 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 10 !A post-remediation gamma static measurement was logged at 8,245 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.

Survey Unit 11 !A total of three characterization gamma static measurements were logged with a maximum measurement of 5,612 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class1 Survey Unit 7. Because no activity above the release criteria was identified, remediation followed by post-remediation sample collection will be performed.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

Radiologically surveyed and released excavated manholes (Survey Nos. HPS-PCPIPE-121211-040 and HPS-PCPIPE-041612-053) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.

Backfill activities were initiated for Trench Unit No. 236 by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 01, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team received a total of six truckloads of material at RSY3 for processing.

The HPNS Team performed the following RSY4 processing activities:

A total of 11 truckloads of material were received for processing.

Issued drawing to identify biased and systematic sample collection locations for ES Unit 0685.

A total of 5 biased and 18 systematic soil samples were collected from ES Unit 0695 and submitted to the on-site laboratory for analysis.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

The HPNS Team provided the RASO with the following:

On-site analytical data for ES Unit 0678 and a request for concurrence to stage the material pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.

On-site analytical data for ES Units 0683 and 0687 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 30

Swipe samples received for Protean counts: 152

Air samples received: 13

Samples analyzed by gamma spectroscopy: 87

Gamma spectroscopy samples recounted: 8

Protean swipe samples counted: 23

Protean air samples counted: 13

A total of 323 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

A total of 119 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 1, 2012 RMAC - CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.

The HPNS Team performed Class 1 survey activities as follows:

Asphalt Grid A7 !A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm².

Survey Unit 22 !A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.

The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by postremediation sample collection activities will be performed.

The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class I Survey Unit 14. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:

- Sample Point 7 (07500SA-S0014-F007-01) with ¹³⁷Cs at 0.1183 pCi/g Sample Point 17 (07500SA-S0014-F017-01) with ¹³⁷Cs at 0.2425 pCi/g
- Sample Point 37 (07500SA-S0014-F037-01) with ¹³⁷Cs at 0.3768 pCi/g

The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

_	07-E36-00-7F	133 linear feet completed
-	07-E36-00-7G	10 linear feet completed
	07-E36-00-7H	12 linear feet completed
-	07-E36-00-7I	6 linear feet completed
-	07-E36-00-8Y	25 linear feet completed

A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.

Excavated Manhole MH1244 was placed on plastic pending further activities.

The HPNS Team provided the RASO with analytical results for the sediment samples collected from Manholes MH1302 and MH1303. Both manholes will be placed in LLRW bins for off-site disposal due to the presence of ¹³⁷Cs contamination as follows:

- Manhole MH1302 (07-PEMH1302-013-01) with ¹³⁷Cs at 0.2161 pCi/g
- Manhole MH1303 (07-PEMH1303-014-01) with ¹³⁷Cs at 0.1319 pCi/g

The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 17 (0.2726 pCi/g).

The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 31, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Buildings 211, 231, and 253; the North Pier; and Work Areas #32 through #35. Details of the work activities performed are provided below.

North Pier

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,227 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 8 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,104 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 10 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,110 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 11 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,599 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

A total of 18 systematic samples were collected from Trench Unit No. 304 (associated with the North Pier) by the HPNS Team and submitted to the on-site laboratory for analysis.

Backfill activities were continued for Trench Unit No. 238 (associated with Buildings 211, 231, and 253) by the HPNS Team.

The HPNS Team and the RASO concurred on backfilling of Trench Unit No. 242.

The HPNS Team issued an updated Parcel C Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 302.

Site restoration activities were performed by the HPNS Team over backfilled trench units in Work Area #33.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 31, 2012 RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team received a total of 13 truckloads of material at RSY3 for processing.

The HPNS Team performed the following RSY4 processing activities:

A total of 13 truckloads of material were received for processing.

Began transfer of ES Unit 0700 to the stockpile area.

The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0686 and a request for concurrence to use the materials as trench backfill.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

After evaluating the data, the RASO concurred with the following:

Transferring ES Unit 0678 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Reuse of ES Units 0658, 0685, 0687, and 0688 as trench backfill.

Basewide Support

One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 140

Swipe samples received for Protean counts: 151

Air samples received: 13

Samples analyzed by gamma spectroscopy: 76

Gamma spectroscopy samples recounted: 13

Protean swipe samples counted: 20

Protean air samples counted: 16

A total of 227 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

A total of 71 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 520 Site

The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class I Survey Unit 4. Characterization and remediation will be performed due to the presence of ⁹⁰Sr contamination at Sample Point 61 (0.365 pCi/g).

500 Series Area

The HPNS Team continued soil grading and debris removal in preparation for upcoming survey activities in Class 2 Survey Units 22 and 23.

The HPNS Team performed Class 1 survey activities for Survey Unit 17. A total of six characterization gamma static measurements were logged with a maximum measurement of 6,340 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPNS Team provided the RASO with total strontium analytical results for the ¹³⁷Cs contaminated samples collected from Class 1 Survey Unit 17; no further contamination was identified.

The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 17.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-4D	10 linear feet completed
i _	07-E36-00-4E	51 linear feet completed
_	07-E36-00-4F	5 linear feet completed
-	07-E36-00-4G	27 linear feet completed
-	07-E36-38-1U	35 linear feet completed

- 07-E36-38-1V	39 linear feet completed
- 07-E36-38-1W	38 linear feet completed
- 07-E36-38-2B	17 linear feet completed
- 07-E36-38-4A	9 linear feet completed
- 07-E36-38-5A	10 linear feet completed

A total of 241 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.

Excavated Manholes MH1257, MH1261, MH1266, and MH1267 were placed on plastic pending further activities.

The HPNS Team investigated trench segment 07-E36-38-1U for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.

A total of four sediment samples were collected from excavated Manholes MH1257, MH1261, MH1266, and MH1267 (MH0016 through MH0019) by the HPNS Team and submitted to the on-site laboratory for analysis.

Survey activities were performed by the HPNS Team for pipe sections removed from trench segment 07-E36-39-1R (Survey No. HPS-PEPIPE-053112-048). During the survey activities, a total of six swipe samples were collected and submitted to the on-site laboratory for analysis.

Survey activities were performed by the HPNS Team on concrete pipe bedding material removed from Trench Unit No. 307 (Survey No. HPS-A-TU307-001). During the survey activities, a total of eight swipe samples were collected and submitted to the on-site laboratory for analysis.

The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 301.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report

100	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
NPR	10	1	Biased	02NPR-S0010-F001-01	22-Mar-12	Ray Roberson
NPR	10	2	Biased	02NPR-S0010-F002-01	22-Mar-12	Ray Roberson
NPR	10	3	Systematic	02NPR-S0010-F003-01	22-Mar-12	Ray Roberson
NPR	10	4	Systematic	02NPR-S0010-F004-01	22-Mar-12	Ray Roberson
NPR	10	5	Systematic	02NPR-S0010-F005-01	22-Mar-12	Ray Roberson
NPR	10	6	Systematic	02NPR-S0010-F006-01	22-Mar-12	Ray Roberson
NPR	10	7	Systematic	02NPR-S0010-F007-01	22-Mar-12	Ray Roberson
NPR	10	8	Systematic	02NPR-S0010-F008-01	22-Mar-12	Ray Roberson
NPR	10	9	Systematic	02NPR-S0010-F009-01	22-Mar-12	Ray Roberson
NPR	10	10	Systematic	02NPR-S0010-F010-01	22-Mar-12	Ray Roberson
NPR	10	11	Systematic	02NPR-S0010-F011-01	22-Mar-12	Ray Roberson
NPR	10	12	Systematic	02NPR-S0010-F012-01	22-Mar-12	Ray Roberson
NPR	10	13	Systematic	02NPR-S0010-F013-01	22-Mar-12	Ray Roberson
NPR	10	14	Systematic	02NPR-S0010-F014-01	22-Mar-12	Ray Roberson
NPR	10	15	Systematic	02NPR-S0010-F015-01	22-Mar-12	Ray Roberson
NPR	10	16	Systematic	02NPR-S0010-F016-01	22-Mar-12	Ray Roberson
NPR	10	17	Systematic	02NPR-S0010-F017-01	22-Mar-12	Ray Roberson
NPR	10	18	Systematic	02NPR-S0010-F018-01	22-Mar-12	Ray Roberson
NPR	10	19	Systematic	02NPR-S0010-F019-01	22-Mar-12	Ray Roberson
NPR	10	20	Systematic	02NPR-S0010-F020-01	22-Mar-12	Ray Roberson
NPR	10	21	Systematic	02NPR-S0010-F021-01	22-Mar-12	Ray Roberson
NPR	10	22	Systematic	02NPR-S0010-F022-01	22-Mar-12	Ray Roberson
NPR	10	23	Characterization	02NPR-S0010-F023-01	20-Apr-12	Joe Cunningham
NPR	10	24	Characterization	02NPR-S0010-F024-01	20-Apr-12	Joe Cunningham
NPR	10	25	Characterization	02NPR-S0010-F025-01	20-Apr-12	Joe Cunningham
NPR	10	26	Post-Remediation	02NPR-S0010-F026-01	01-May-12	Ray Roberson
NPR	10	27	Systematic	02NPR-S0010-F027-01	31-May-12	Ray Roberson
NPR	10	28	Systematic	02NPR-S0010-F028-01	31-May-12	Ray Roberson
NPR	10	29	Systematic	02NPR-S0010-F029-01	31-May-12	Ray Roberson
NPR	10	30	Systematic	02NPR-S0010-F030-01	31-May-12	
NPR	10	31	Systematic	02NPR-S0010-F031-01	31-May-12	
NPR	10	32	Systematic	02NPR-S0010-F032-01	31-May-12	
NPR	10	33	Systematic	02NPR-S0010-F033-01	31-May-12	Ray Roberson
NPR	10	34	Systematic	02NPR-S0010-F034-01	31-May-12	Ray Roberson
NPR	10	35	Systematic	02NPR-S0010-F035-01	31-May-12	
NPR	10	36	Systematic	02NPR-S0010-F036-01	31-May-12	
NPR	10	37	Systematic	02NPR-S0010-F037-01	31-May-12	
NPR	10	38	Systematic	02NPR-S0010-F038-01	31-May-12	
NPR	10	39	Systematic	02NPR-S0010-F039-01	31-May-12	
NPR	10	40	Systematic	02NPR-S0010-F040-01	31-May-12	
NPR	10	41	Systematic	02NPR-S0010-F041-01	31-May-12	
NPR		42	Systematic	02NPR-S0010-F042-01	31-May-12	
NPR		43	Systematic	02NPR-S0010-F043-01	31-May-12	
NPR		44	Systematic	02NPR-S0010-F044-01	31-May-12	
NPR	+	45	Systematic	02NPR-S0010-F045-01	31-May-12	
NPF		46	Systematic	02NPR-S0010-F046-01	31-May-12	
NPF		47	Systematic	02NPR-S0010-F047-01	31-Oct-12	
NPF		48	Systematic	02NPR-S0010-F048-01	31-Oct-12	
NPF		49	Systematic	02NPR-S0010-F049-01	31-Oct-12	
NPF	_	50	Systematic	02NPR-S0010-F050-01	31-Oct-12	
NPF		51	Systematic	02NPR-S0010-F051-01	31-Oct-12	
NPF	₹ 10	52	Systematic	02NPR-S0010-F052-01	31-Oct-12	Jane Taylor

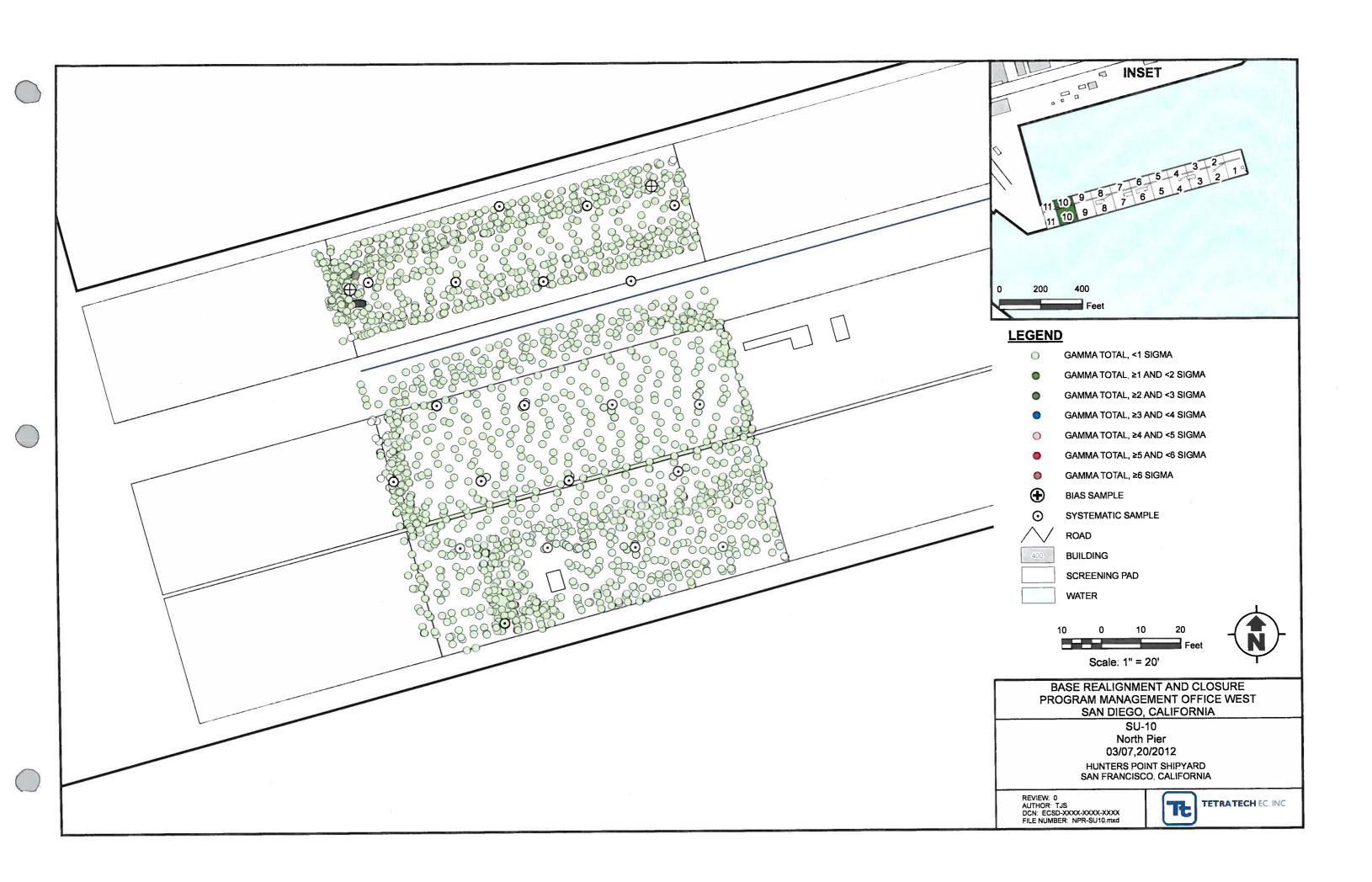
On-Site Laboratory (pCi/g)					
K-40	Ra-226	Cs-137	Bì-214	Pb-214	
20.29	0.6785	0.006007	0.5414	0.6019	
25.15	0.9764	0.0008236	0.477	0.76	
22.21	0.7281	0	0.5743	0.638	
8.129	0.4927	0.002939	0.2472	0.2819	
21.87	0	0	0.3676	0.6057	
21.21	0.7082	0.004968	0.5793	0.6405	
23.88	1.084	0.009986	0.5716	0.494	
6.029	0	0.003649	0.1115	0.1074	
12.51	0.6535	0.0158	0.454	0.5068	
8.211	0.7645	0.002413	0.2651	0.2636	
12.02	0.5267	0.01141	0.2673	0.384	
20.07	0.756	0.0003937	0.3785	0.4575	
12.65	0.7291	0.1385	0.4345	0.4294	
9.99	0.9019	0.01055	0.3372	0.4236	
6.374	0.2811	-0.008514	0.3078	0.1898	
8.387	-0.008364	0.007262	0.2291	0.1766	
19.23	0.7533	0.01825	0.5409	0.6524	
21.55	0.7939	0.01367	0.371	0.6143	
7.232	0.5372	0.003082	0.2756	0.2896	
5.682	0.1672	0.00757	0.0741	0.09625	
7.186	0.1795	0.004648	0.2271	0.374	
9.381	0.6213	0	0.2476	0.295	
12.07	0.7697	0.06063	0.375	0.4531	
11.9	0.3375	0.0431	0.4349	0.474	
13.28	0.291	0.08269	0.4161	0.3279	
22.62	0.7754	0.07525	0.5631	0.7483	
0.6833	0.1434	-0.0107	0.09833	0.06932	
1.251	0.2882	0.0005249	0.09179	0.07474	
0.806	0.1784	-0.00678	0.03678	0.1156	
0.9158	-0.1069	-0.006464	0.1221	0.1994	
1.222	-0.0001456	0	0.08415	0.03793	
1.094	0.005098	0.003857	0.05481	0.05865	
0.9647	0.1142	0.00404	0.1511	0.1413	
0.6492	0.2877	0.005153	0.06135	0.08519	
1,011	0.1667	-0.004119	0	0.07747	
0.6255	0.1625	-0.002526	0.02841	0.1163	
0.7935	0.1306	0.0003526	0.09417	0.1602	
1.091	0.1954	0.000761	0.04725	0.05852	
0.7188	0.3153	0.0003057	0.105	0.1524	
0.5535	0.107	0	0.04784	0.03953	
0.8721	0.1425	0	0.09018	0.04439	
0.6762	0.4663	-0.008189	0.1209	0.1566	
0.4261	0.1519	0.0002431	0.07846	0.0328	
1.36	0.3864	0.001372	0.05841	0.1962	
1.35	0.4059	-0.004177	0.07377	0.076	
0.8907	0.01069	-0.000561	0.0672	0.09132	
14.23	0.8226	0	0.4883	0.5446	
11.57	0.7266	0.02279	0.4369	0.4187	
11.74	0.8703	0	0.4374	0.3718	
12.6	0.5098	0.003433	0.3722	0.5953	
9.3	0.279	0.005266	0.1725	0.2999	
7.858	0.5698	0.0176	0.2641	0.1399	

And the second second	Ra-226	Cs-137	Bi-214	Pb-214
4.05	0.402	0.00070	0 193	0.0618
1.25	0.183	0.00878	0.183	0.0618
1.41	-0.0351	0.00842	-0.0351	0.0712
1.41 1.19	-0.0351 0.115	0.00842 -0.00304	-0.0351 0.115	0.0712 0.124
1.41 1.19 1.02	-0.0351 0.115 0.145	0.00842 -0.00304 0.00362	-0.0351 0.115 0.145	0.0712 0.124 0.184
1.41 1.19 1.02 0.244	-0.0351 0.115 0.145 0.245	0.00842 -0.00304 0.00362 0.00557	-0.0351 0.115 0.145 0.245	0.0712 0.124 0.184 0.0911
1.41 1.19 1.02 0.244 0.296	-0.0351 0.115 0.145 0.245 0.227	0.00842 -0.00304 0.00362 0.00557 0.00727	-0.0351 0.115 0.145 0.245 0.227	0.0712 0.124 0.184 0.0911 0.309
1.41 1.19 1.02 0.244 0.296 0.326	-0.0351 0.115 0.145 0.245 0.227 0.44	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151	-0.0351 0.115 0.145 0.245 0.227 0.44	0.0712 0.124 0.184 0.0911
1.41 1.19 1.02 0.244 0.296 0.326 0.612	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017	-0.0351 0.115 0.145 0.245 0.227	0.0712 0.124 0.184 0.0911 0.309 0.204
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464 0.515	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115 0.00263	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464 0.515	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115 0.00263	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464 0.515	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115 0.00263	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464 0.515	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115 0.00263	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183
1.41 1.19 1.02 0.244 0.296 0.326 0.612 1.45 0.676 0.709 0.161 0.666 1.36 0.309 1.07 -0.219 0.464 0.515	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.00842 -0.00304 0.00362 0.00557 0.00727 0.0151 0.017 0.00207 0.00114 0.0245 0.0311 0.0269 -0.0143 0.00247 0.00806 -0.0102 -0.0115 0.00263	-0.0351 0.115 0.145 0.245 0.227 0.44 0.0384 -0.0185 0.0403 0.0787 0.114 0.234 0.047 0.207 0.0268 0.0677 0.159 0.021	0.0712 0.124 0.184 0.0911 0.309 0.204 0.168 0.0909 0.23 0.0787 0.134 0.178 0.166 0.235 0.202 0.189 0.183

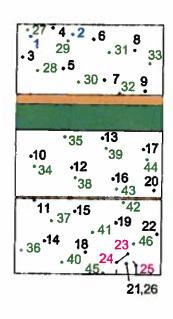
Off-Site Laboratory (pCi/g)

									On-Site Laboratory (pCi/g)				
Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	K.	40	Ra-226	Cs-137	Bi-214	Pb-214	
NPR	10	53	Systematic	02NPR-S0010-F053-01	31-Oct-12	Jane Taylor	7.3	47	0.4667	0.01041	0.1955	0.1878	
NPR	10	54	Systematic	02NPR-S0010-F054-01	31-Oct-12	Jane Taylor	7.8	15	0.5893	-0.005018	0.2884	0.3019	
NPR	10	55	Systematic	02NPR-S0010-F055-01	31-Oct-12	Jane Taylor	14.	67	1.03	0.01024	0.2767	0.3451	
NPR	10	56	Systematic	02NPR-S0010-F056-01	31-Oct-12	Jane Taylor	6.4	09	0.3325	0.001845	0.07646	0.1466	
NPR	10	57	Systematic	02NPR-S0010-F057-01	31-Oct-12	Jane Taylor	7.6	24	0.6869	0	0.09832	0.2438	
NPR	10	58	Systematic	02NPR-S0010-F058-01	31-Oct-12	Jane Taylor	7.3	58	0.3283	0.009023	0.221	0.2263	
NPR	10	59	Systematic	02NPR-S0010-F059-01	31-Oct-12	Jane Taylor	8.0	12	0.4138	0	0.2028	0.2255	
NPR	10	60	Systematic	02NPR-S0010-F060-01	31-Oct-12	Jane Taylor	7.1	18	0.6714	0	0	0.217	
NPR	10	61	Systematic	02NPR-S0010-F061-01	31-Oct-12	Jane Taylor	6.3	39	0.07396	0	0.1617	0.2319	
NPR	10	62	Systematic	02NPR-S0010-F062-01	31-Oct-12	Jane Taylor	_	99	0.571	0	0.2031	0.2897	
NPR	10	63	Systematic	02NPR-S0010-F063-01	31-Oct-12	Jane Taylor	9.6	78	0.5663	0.01302	0.1993	0.2959	
NPR	10	64	Systematic	02NPR-S0010-F064-01	31-Oct-12	Jane Taylor	6.3	_	0.2462	-0.0007313	0.08899	0.08067	
NPR	10	65		02NPR-S0010-F065-01	31-Oct-12	Jane Taylor	4.	_	0.2164	-0.003095	0.02739	0.06509	
NPR		66	Systematic Systematic	02NPR-S0010-F066-01	31-Oct-12	Jane Taylor		.04	1.078	0.0003142	0.7597	0.6944	
Highli	ghted Acti	vities: Ra-2	226 ≥ 1.633 (On-si	te) & 1.375 (Off-site) ; Cs-13									

	Off-S	ite Laboratory ((pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214



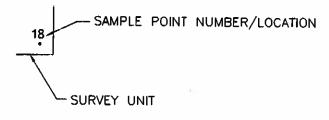




SU-11 CLASS 1 556.60 m² (5991.20 ft²)

LEGEND:

- 1 BIASED 1-2
- 3 SYSTEMATIC 3-22
- 23 CHARACTERIZATION 23-25
- 26 POST—REMEDIATION 26
- 32 SYSTEMATIC 2 27-46
- AREAS PREVIOUSLY REMEDIATED
 - ROCK
- CONCRETE



RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 11



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



TETRATECH EC. INC. Gamma Direct Measurement Report San Francisco, CA

5ite Area: NPR Survey Unit: 11 Class: 1 Area: 556.60 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
	2 (2) (2) (2)	СРМ	СРМ	CPM		Level (cpm)	
1	3/21/2012 10:52	5590	6386	-796	600-BKGDS1B	6765	
2	3/21/2012 10:54	6349	6386	-37	600-BKGDS1B	6765	
3	3/21/2012 10:55	5800	6386	-586	600-BKGDS1B	6765	
4	3/21/2012 10:57	5087	6386	-1299	600-BKGDS1B	6765	
5	3/21/2012 10:59	6262	6386	-124	600-BKGDS1B	6765	
6	3/21/2012 11:00	6400	6386	14	600-BKGDS1B	6765	
7	3/21/2012 11:02	4947	6386	-1439	600-BKGDS1B	6765	and and a
8	3/21/2012 11:03	6692	6386	306	600-BKGDS1B	6765	
9	3/21/2012 11:04	5381	6386	-1005	600-BKGDS1B	6765	
10	3/21/2012 11:06	5947	6386	-439	600-BKGDS1B	6765	
11	3/21/2012 11:07	4422	6386	-1964	600-BKGDS1B	6765	
12	3/21/2012 11:09	4635	6386	-1751	600-BKGDS1B	6765	
13	3/21/2012 11:10	4344	6386	-2042	600-BKGDS1B	6765	
14	3/21/2012 11:12	5376	6386	-1010	600-BKGDS1B	6765	
15	3/21/2012 11:14	4183	6386	-2203	600-BKGDS1B	6765	
16	3/21/2012 11:16	5147	6386	-1239	600-BKGDS1B	6765	
17	3/21/2012 11:17	4440	6386	-1946	600-BKGD\$1B	6765	
18	3/21/2012 11:19	5118	6386	-1268	600-BKGDS1B	6765	
19	3/21/2012 11:21	3923	6386	-2463	600-BKGDS1B	6765	
20	3/21/2012 11:22	3622	6386	-2764	600-BKGDS1B	6765	
21	3/21/2012 11:24	5907	6386	-479	600-BKGDS1B	6765	
2 2	3/21/2012 11:25	2912	6386	-3474	600-BKGDS1B	6765	
23	5/1/2012 15:04	4134	6386	-2252	600-BKGDS1B	6765	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
24	5/1/2012 15:05	5582	6386	-804	600-BKGDS1B	6765	101 201 201
25	5/1/2012 15:06	5612	6386	-774	600-BKGDS1B	6765	
26	5/9/2012 10:02	6493	6066	427	630-BKGDS1A	7326	
27	5/31/2012 16:04	5460	6808	-1348	630-BKGDS1B	8141	
28	5/31/2012 16:05	4855	6808	-1953	630-BKGDS1B	8141	
29	5/31/2012 16:06	6600	6808	-208	630-BKGDS1B	8141	
30	5/31/2012 16:07	5132	6808	-1676	630-BKGDS1B	8141	
31	5/31/2012 16:09	6063	6808	-745	630-BKGDS1B	8141	
32	5/31/2012 16:10	4672	6808	-2136	630-BKGDS1B	8141	V = 1 0/20 mg
			7				



Count Time: 1 min Area: 556.60 m² Class: 1 Site Area: NPR Survey Unit: 11

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
33	5/31/2012 16:11	5290	6808	-1518	630-BKGD51B	8141	
34	5/31/2012 16:12	5165	6808	-1643	630-BKGDS1B	8141	MARKET STATE
35	5/31/2012 16:13	4808	6808	-2000	630-BKGDS1B	8141	
36	5/31/2012 16:14	4846	6808	-1962	630-BKGDS1B	8141	
37	5/31/2012 16:15	4091	6808	-2717	630-BKGDS1B	8141	
38	5/31/2012 16:16	4608	6808	-2200	630-BKGDS1B	8141	
39	5/31/2012 16:17	4045	6808	-2763	630-BKGDS1B	8141	
40	5/31/2012 16:18	5118	6808	-1690	630-BKGDS1B	8141	
41	5/31/2012 16:19	3461	6808	-3347	630-BKGD51B	8141	
42	5/31/2012 16:20	3539	6808	-3269	630-BKGDS1B	8141	
43	5/31/2012 16:21	4933	6808	-1875	630-BKGDS1B	8141	
44	5/31/2012 16:22	4146	6808	-2662	630-BKGDS1B	8141	
45	5/31/2012 16:23	5102	6808	-1706	630-BKGDS1B	8141	
46	5/31/2012 16:25	3249	6808	-3559	630-BKGDS1B	8141	

Net Gamma cpm

Min: -3559

Summary Avg: -1573

Max: 427

St Dev: 1008

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements > 3σ investigation level are verified by 2360 beta measurements



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Bonort **Background Report**

Site Area: NPR Survey Unit: 11 Class: 1 Area: 556.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 600

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 95360

Probe Serial #: 192597

Calibration Due Date: 6/8/2012

Reference Area 8ackground Identification #: 600-BKGDS1B Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	09/08/2011 13:56	6403
2	09/08/2011 13:57	6371
3	09/08/2011 13:58	6445
4	09/08/2011 13:59	6476
5	09/08/2011 13:01	6384
6	09/08/2011 13:04	6441
7	09/08/2011 13:09	6015
8	09/08/2011 13:11	6189
9	09/08/2011 13:13	6336
10	09/08/2011 13:14	6452
11	09/08/2011 13:15	6517
12	09/08/2011 13:16	6495
13	09/08/2011 13:17	6459
14	09/08/2011 13:18	6549
15	09/08/2011 13:19	6418
16	09/08/2011 13:20	6428
17	09/08/2011 13:22	6278
18	09/08/2011 13:32	6226
19	09/08/2011 13:33	6377
20	09/08/2011 13:34	6456

Gamma Mean Background (cpm):

6386

Standard Deviation:

127

Gamma 3σ Investigation

6765

Level (cpm):



Gamma Instrument and Reference Area Background Report

Area: 556.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Survey Unit: 11

2350 Identification #: 630

Site Area: NPR

instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588

Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-8KGDS1A Count Time (minutes): 1.00

Class: 1

Rdg #	Date and Time	Gross Gamma CPM
1	05/07/2012 13:53	5960
2	05/07/2012 13:54	6454
3	05/07/2012 13:55	6379
4	05/07/2012 13:56	6341
5	05/07/2012 13:58	6462
6	05/07/2012 13:59	5562
7	05/07/2012 14:00	6147
8	05/07/2012 14:01	6082
9	05/07/2012 14:02	6563
10	05/07/2012 14:04	6738
11	05/07/2012 14:06	5328
12	05/07/2012 14:07	5349
13	05/07/2012 14:09	5317
14	05/07/2012 14:10	6023
15	05/07/2012 14:11	6016
16	05/07/2012 14:12	6229
17	05/07/2012 14:13	6439
18	05/07/2012 14:15	6218
19	05/07/2012 14:18	5862
20	05/07/2012 14:19	5857

Gamma Mean Background (cpm):

6066

Standard Deviation:

420

Gamma 3σ Investigation

7326

Level (cpm):



Gamma Instrument and Reference Area Background Report

Site Area: NPR Survey Unit: 11 Class: 1 Area: 556.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 630

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 120588

Probe Serial #: 081878

Calibration Due Date: 10/16/2012

Reference Area Background Identification #: 630-BKGDS18 Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	05/23/2012 13:42	6777
2	05/23/2012 13:43	6444
3	05/23/2012 13:44	7288
4	05/23/2012 13:45	7319
5	05/23/2012 13:47	6473
6	05/23/2012 13:48	6801
7	05/23/2012 13:49	7364
8	05/23/2012 13:50	7091
9	05/23/2012 13:51	6567
10	05/23/2012 13:53	5952
11	05/23/2012 13:55	6739
12	05/23/2012 13:56	6778
13	05/23/2012 13:58	6925
14	05/23/2012 13:59	6047
15	05/23/2012 14:00	6022
16	05/23/2012 14:02	7217
17	05/23/2012 14:03	6857
18	05/23/2012 14:05	7209
19	05/23/2012 14:07	7323
20	05/23/2012 14:08	6960

Gamma Mean Background (cpm):

6808

Standard Deviation:

444

Gamma 3σ Investigation

8141

Level (cpm):



TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shippyard San Francisco, CA

Site Area: NPR Survey Unit: 11 Class: 1 Area: 556,60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 636-BKGDS1

Instrument Serial Number:

115870

Reference Area 8ackground

Parcel D-1

Instrument Calibration Due Date:

10/10/2012

Location:

Reference

Exposure Rate

Identification #:

5

8ackground (μR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	3/21/2012	6	
2	3/21/2012	7	
3	3/21/2012	6	
4	3/21/2012	6	
5	3/21/2012	5	
6	3/21/2012	7	
7	3/21/2012	7	
8	3/21/2012	7	
9	3/21/2012	6	
10	3/21/2012	7	
11	3/21/2012	5	
12	3/21/2012	6	
13	3/21/2012	6	
14	3/21/2012	5	
15	3/21/2012	5	
16	3/21/2012	5	
17	3/21/2012	5	
18	3/21/2012	5	
19	3/21/2012	4	
20	3/21/2012	5	
21	3/21/2012	5	
22	3/21/2012	4	
23	5/1/2012	4	
24	5/1/2012	5	
25	5/1/2012	5	
26	5/9/2012	6	
27	5/31/2012	5	

TETRATECH EC, INC. Hunters Point Shipyard San Francisco, CA Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	5/31/2012	4	
29	5/31/2012	6	
30	5/31/2012	5	
31	5/31/2012	6	
32	5/31/2012	4	
33	5/31/2012	5	
34	5/31/2012	5	
35	5/31/2012	4	
36	5/31/2012	4	
37	5/31/2012	4	
38	5/31/2012	4	
39	5/31/2012	4	
40	5/31/2012	5	
41	5/31/2012	4	
42	5/31/2012	4	
43	5/31/2012	4	
44	5/31/2012	4	
45	5/31/2012	5	
46	5/31/2012	4	

Exposure Rate

Min: 4.00

Summary (µR/hr) Avg: 5.09

Max: 7.00 St Dev: 0.98

TE TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

BFS 02327

Project Name Radiological Site Survey	rvey	PO Number	ט	N/A			A G	<u> </u>	11 2	LABORATORY NAME	Project Information
Project Location HUNTERS POINT	5	Project Number	mber	4044-0002	. 2	100	ZZ.	A 표		ONSITE - Curtis & Tompkins, LTD.	Section
Sampler Name RAV ROBERSON	3	Airbill Number	mber	N/A	- 24		400	<	9	LA ВОRATORY ID	1
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TETRATECH EC. INC. 1230 Columbia St, Sulte 750 San Diego, CA 92103

BFS 02328

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TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

BFS 02396

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TETRATECH EC, INC. 1230 Columbia St, Sutte 750

San Diego, CA 92101

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Project Chemist

LISA BIENKOWSKI Project Name Radiological Site Survey Project Location HUNTERS POINT 02NPR-S0011-F026-01 SAMPLE ID

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San Diego, CA 92101

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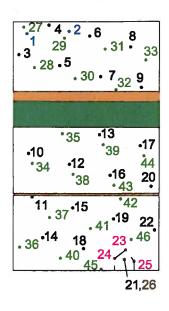
TETRATECH EC. INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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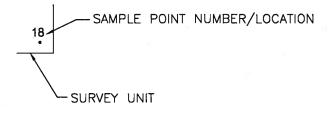
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RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

NORTH PIER WA-32 SURVEY UNIT 11



TETRA TECH EC, IN C1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From:

Chiu, George

Sent:

Wednesday, July 11, 2012 10:18 AM

Cc:

To:

Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty. Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer,

Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject:

HPS Data - North Pier Survey Unit 11

Attachments:

02NPR-S0011 027 to 046 Off-Site Gamma.pdf; 02NPR-S0011 Pu and Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec, strontium, and plutonium results for the systematic samples from North Pier Survey Unit 11.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

www.radsvcs.com

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Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Sunday, June 10, 2012 4:54 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from North Pier Survey Unit 11. Samples 29 and 30 were recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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From: Chiu, George

Sent: Thursday, May 17, 2012 12:50 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil);

Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample with cesium-137 activity above the release criterion from North Pier Survey Unit 11.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

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From: Chiu, George

Sent: Tuesday, May 15, 2012 7:28 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from North Pier Survey Unit 11.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist

Office: 415.216.2745 | Cell: 714.270.4009

george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503

ww.radsvcs.com

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From: Chiu, George

Sent: Friday, May 11, 2012 9:24 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti;

Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from North Pier Survey Unit 11.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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From: Chiu, George

Sent: Sunday, April 29, 2012 7:24 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site systematic sampling results from North Pier Survey Unit 11.

We will proceed with characterization/remediation around sample point 21 (0.118 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Tuesday, April 03, 2012 12:58 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - North Pier Survey Unit 11

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from North Pier Survey Unit 11. Sample 10 was recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

According to the TSP for North Pier, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium and Pu-239.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 21, 2012 RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, #34, and #35. Details of the work activities performed are provided in the sections below.

North Pier

Survey activities were performed by the HPNS Team on the aboveground force main concrete bedding debris (Survey No. HPS-A-NPR-031); a total of 36 swipe samples were collected and submitted to the on-site laboratory for analysis.

The HPNS Team performed Class 1 survey activities for Survey Unit 11. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,692 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

Backfill activities were continued in Trench Unit No. 239 by the HPNS Team.

The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 242.

A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 21, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team performed the following RSY4 processing activities:

One truckload of material was received for processing.

Began transfer of ES Unit 0618 to the metal debris reef area.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 73

Swipe samples received for Protean counts: 41

Air samples received: 6

Samples analyzed by gamma spectroscopy: 72

Gamma spectroscopy samples recounted: 25

Protean swipe samples counted: 74

Protean air samples counted: 6

A total of 283 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

Radiological support was provided to CKY by the HPNS Team during maintenance and landscaping activities in Parcel E-2.

Radiological support was provided to Shaw Group by the HPNS Team during groundwater monitoring activities in Buildings 211/253.

One incoming materials and equipment survey was performed by the HPNS Team.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: March 21, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Buildings 507 and 508 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 507 Site

Towed array gamma scan survey activities over Class 1 Survey Unit 1 were completed by the HPNS Team.

Building 508 Site

The HPNS Team performed soil grading and debris removal in preparation for upcoming towed array surveys.

Building 521

A total of seven drums containing bunker fuel oil and pipe chase materials were scanned and transferred to ITSI for off-site disposal.

500 Series Area

The HPNS Team performed towed array gamma scan surveys over the H Street asphalt covering Class 1 Survey Unit 10.

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 16 !A total of 14 characterization gamma static measurements were logged with a maximum measurement of 7,789 cpm. In addition, 14 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 20 !A total of 36 systematic gamma static measurements were logged with a maximum measurement of 6,672 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 16 and 20.

The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Units 1, 18, and 19.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

An additional control access point was installed on the southern end of H Street by the HPNS Team to facilitate upcoming sewer removal activities.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 1, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #34. Details of the work activities performed are provided in the sections below.

North Pier

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A post-remediation gamma static measurement was logged at 4,909 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.

Survey Unit 8 !A total of two post-remediation gamma static measurements were logged with a maximum measurement of 7,183 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 10 !A post-remediation gamma static measurement was logged at 8,245 cpm and one soil sample was collected and submitted to the on-site laboratory for analysis.

Survey Unit 11 !A total of three characterization gamma static measurements were logged with a maximum measurement of 5,612 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class1 Survey Unit 7. Because no activity above the release criteria was identified, remediation followed by post-remediation sample collection will be performed.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

Radiologically surveyed and released excavated manholes (Survey Nos. HPS-PCPIPE-121211-040 and HPS-PCPIPE-041612-053) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.

Backfill activities were initiated for Trench Unit No. 236 by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 01, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team received a total of six truckloads of material at RSY3 for processing.

The HPNS Team performed the following RSY4 processing activities:

A total of 11 truckloads of material were received for processing.

Issued drawing to identify biased and systematic sample collection locations for ES Unit 0685.

A total of 5 biased and 18 systematic soil samples were collected from ES Unit 0695 and submitted to the on-site laboratory for analysis.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

The HPNS Team provided the RASO with the following:

On-site analytical data for ES Unit 0678 and a request for concurrence to stage the material pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.

On-site analytical data for ES Units 0683 and 0687 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 30

Swipe samples received for Protean counts: 152

Air samples received: 13

Samples analyzed by gamma spectroscopy: 87

Gamma spectroscopy samples recounted: 8

Protean swipe samples counted: 23

Protean air samples counted: 13

A total of 323 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

A total of 119 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 1, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.

The HPNS Team performed Class 1 survey activities as follows:

Asphalt Grid A7 !A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm².

Survey Unit 22 !A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.

The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by postremediation sample collection activities will be performed.

The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class I Survey Unit 14. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:

- Sample Point 7 (07500SA-S0014-F007-01) with ¹³⁷Cs at 0.1183 pCi/g Sample Point 17 (07500SA-S0014-F017-01) with ¹³⁷Cs at 0.2425 pCi/g
- Sample Point 37 (07500SA-S0014-F037-01) with ¹³⁷Cs at 0.3768 pCi/g

The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-7F	133 linear feet completed
-	07-E36-00-7G	10 linear feet completed
-	07-E36-00-7H	12 linear feet completed
-	07-E36-00-7I	6 linear feet completed
-	07-E36-00-8Y	25 linear feet completed

A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.

Excavated Manhole MH1244 was placed on plastic pending further activities.

The HPNS Team provided the RASO with analytical results for the sediment samples collected from Manholes MH1302 and MH1303. Both manholes will be placed in LLRW bins for off-site disposal due to the presence of ¹³⁷Cs contamination as follows:

- Manhole MH1302 (07-PEMH1302-013-01) with ¹³⁷Cs at 0.2161 pCi/g
- Manhole MH1303 (07-PEMH1303-014-01) with ¹³⁷Cs at 0.1319 pCi/g

The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 17 (0.2726 pCi/g).

The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 9, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #34. Details of the work activities performed are provided in the sections below.

North Pier

Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 11 by the HPNS Team and placed in LLRW bin GFLU002019 for off-site disposal.

The HPNS Team performed Class 1 survey activities for Survey Unit 11. A post-remediation gamma static measurement was logged at 6,492 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPNS Team issued record drawings to identify post-remediation sample collection locations in Class 1 Survey Unit 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

A total of nine investigative soil samples were collected from Trench Unit Nos. 302 and 303 by the HPNS Team and submitted to the on-site laboratory for analysis.

Backfill activities were completed for Trench Unit No. 243 by the HPNS Team.

Site restoration activities were continued by the HPNS Team over backfilled trench units along Spear Avenue in Work Area #33.

A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 9, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team received a total of 17 truckloads of material at RSY3 for processing. The HPNS Team performed the following RSY4 processing activities:

One truckload of material was received for processing.

Issued drawing to identify biased and systematic sample collection locations for ES Unit 0698.

Remediated approximately 0.25 cubic yards of soil from ES Unit 0698 and placed the material in LLRW bins pending off-site disposal by the DON radiological waste contractor.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0660 and a request for concurrence to transfer the material to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 50

Air samples received: 10

Samples analyzed by gamma spectroscopy: 53

Gamma spectroscopy samples recounted: 9

Protean swipe samples counted: 96

Protean air samples counted: 10

A total of 211 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

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Report Date: May 9, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the work activities performed are provided in the sections below.

Building 707 Triangle

Approximately 92 cubic yards of soil was remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bins AWIU000295, GFLU002019, GFLU002035, GFLU002059, GFLU00213, and GFLU002137 for off-site disposal.

The HPNS Team performed Class 1 survey activities for Survey Unit 23. A total of 400 gamma scan readings were logged with a maximum reading of 300 cpm (FIDLER). The RSO is in the process of reviewing these data.

500 Series Area

Towed array gamma scan surveys were performed over Class 2 Survey Unit 23.

The HPNS Team performed Class 1 survey activities for Survey Unit 13. A total of 4 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 7,320 cpm. In addition, 40 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 216 cubic yards of soil from Work Area #36 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-500-38-1B	10 linear feet completed
-	07-E36-38-1A	9 linear feet completed
-	07-E36-38-1B	10 linear feet completed
-	07-E36-39-1F	38 linear feet completed
-	07-E36-39-1W	30 linear feet completed
-	07-E36-39-8F	12 linear feet completed
-	07-E36-39-8G	40 linear feet completed

A total of 96 linear feet of trench (including excavated soil and pipes) identified on the design drawings and 52 linear feet not identified on the design drawings were completed by the HPNS Team.

Pipes excavated from trench segments 07-500-38-1B, 07-E36-39-8F, and 07-E36-39-8G were placed on plastic pending further activities.

Crushed pipe and debris excavated from trench segments 07-E36-00-1A and 07-E36-00-1B were placed in LLRW bin GFLU002131 for off-site disposal.

The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 241 (associated with the Building 529 Site) along with a request for concurrence to backfill.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: May 31, 2012	DAD FILLAG CORO COO
Report Date: May 31, 2012	RAD EMAC – CTO 002
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Overview

The HPNS Team continued field activities for Buildings 211, 231, and 253; the North Pier; and Work Areas #32 through #35. Details of the work activities performed are provided below.

North Pier

The HPNS Team performed Class 1 survey activities as follows:

Survey Unit 1 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,227 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 8 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,104 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 10 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,110 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 11 !A total of 20 systematic gamma static measurements were logged with a maximum measurement of 6,599 cpm and 20 soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 1, 8, 10, and 11.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

A total of 18 systematic samples were collected from Trench Unit No. 304 (associated with the North Pier) by the HPNS Team and submitted to the on-site laboratory for analysis.

Backfill activities were continued for Trench Unit No. 238 (associated with Buildings 211, 231, and 253) by the HPNS Team.

The HPNS Team and the RASO concurred on backfilling of Trench Unit No. 242.

The HPNS Team issued an updated Parcel C Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 302.

Site restoration activities were performed by the HPNS Team over backfilled trench units in Work Area #33.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: May 31, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPNS Team received a total of 13 truckloads of material at RSY3 for processing.

The HPNS Team performed the following RSY4 processing activities:

A total of 13 truckloads of material were received for processing.

Began transfer of ES Unit 0700 to the stockpile area.

The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0686 and a request for concurrence to use the materials as trench backfill.

The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

After evaluating the data, the RASO concurred with the following:

Transferring ES Unit 0678 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Reuse of ES Units 0658, 0685, 0687, and 0688 as trench backfill.

Basewide Support

One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 140

Swipe samples received for Protean counts: 151

Air samples received: 13

Samples analyzed by gamma spectroscopy: 76

Gamma spectroscopy samples recounted: 13

Protean swipe samples counted: 20

Protean air samples counted: 16

A total of 227 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

A total of 71 samples were sent to TestAmerica St. Louis for analysis.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 520 Site

The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class I Survey Unit 4. Characterization and remediation will be performed due to the presence of ⁹⁰Sr contamination at Sample Point 61 (0.365 pCi/g).

500 Series Area

The HPNS Team continued soil grading and debris removal in preparation for upcoming survey activities in Class 2 Survey Units 22 and 23.

The HPNS Team performed Class 1 survey activities for Survey Unit 17. A total of six characterization gamma static measurements were logged with a maximum measurement of 6,340 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPNS Team provided the RASO with total strontium analytical results for the ¹³⁷Cs contaminated samples collected from Class 1 Survey Unit 17; no further contamination was identified.

The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 17.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-4D	10 linear feet completed
-	07-E36-00-4E	51 linear feet completed
-	07-E36-00-4F	5 linear feet completed
-	07-E36-00-4G	27 linear feet completed
-	07-E36-38-1U	35 linear feet completed

-	07-E36-38-1V	39 linear feet completed
-	07-E36-38-1W	38 linear feet completed
-	07-E36-38-2B	17 linear feet completed
-	07-E36-38-4A	9 linear feet completed
-	07-E36-38-5A	10 linear feet completed

A total of 241 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.

Excavated Manholes MH1257, MH1261, MH1266, and MH1267 were placed on plastic pending further activities.

The HPNS Team investigated trench segment 07-E36-38-1U for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.

A total of four sediment samples were collected from excavated Manholes MH1257, MH1261, MH1266, and MH1267 (MH0016 through MH0019) by the HPNS Team and submitted to the on-site laboratory for analysis.

Survey activities were performed by the HPNS Team for pipe sections removed from trench segment 07-E36-39-1R (Survey No. HPS-PEPIPE-053112-048). During the survey activities, a total of six swipe samples were collected and submitted to the on-site laboratory for analysis.

Survey activities were performed by the HPNS Team on concrete pipe bedding material removed from Trench Unit No. 307 (Survey No. HPS-A-TU307-001). During the survey activities, a total of eight swipe samples were collected and submitted to the on-site laboratory for analysis.

The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan and Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Unit No. 301.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report

Area Survey Unit Sample Point Sample Type Sample ID Collected Collected Technic Technic NPR 11 1 Biased 02NPR-S0011-F001-01 21-Mar-12 Ray Robe NPR 11 2 Biased 02NPR-S0011-F002-01 21-Mar-12 Ray Robe NPR 11 3 Systematic 02NPR-S0011-F003-01 21-Mar-12 Ray Robe NPR 11 4 Systematic 02NPR-S0011-F004-01 21-Mar-12 Ray Robe NPR 11 5 Systematic 02NPR-S0011-F005-01 21-Mar-12 Ray Robe NPR 11 6 Systematic 02NPR-S0011-F006-01 21-Mar-12 Ray Robe NPR 11 7 Systematic 02NPR-S0011-F006-01 21-Mar-12 Ray Robe NPR 11 8 Systematic 02NPR-S0011-F008-01 21-Mar-12 Ray Robe NPR 11 9 Systematic 02NPR-S0011-F009-01 21-Mar-12 Ray Robe NPR 11 10	erson
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NPR 11 16 Systematic 02NPR-S0011-F016-01 21-Mar-12 Ray Robe NPR 11 17 Systematic 02NPR-S0011-F017-01 21-Mar-12 Ray Robe NPR 11 18 Systematic 02NPR-S0011-F018-01 21-Mar-12 Ray Robe NPR 11 19 Systematic 02NPR-S0011-F019-01 21-Mar-12 Ray Robe NPR 11 20 Systematic 02NPR-S0011-F020-01 21-Mar-12 Ray Robe NPR 11 21 Systematic 02NPR-S0011-F021-01 21-Mar-12 Ray Robe NPR 11 22 Systematic 02NPR-S0011-F022-01 21-Mar-12 Ray Robe NPR 11 23 Characterization 02NPR-S0011-F023-01 01-May-12 Ray Robe NPR 11 24 Characterization 02NPR-S0011-F024-01 01-May-12 Ray Robe	
NPR 11 17 Systematic 02NPR-S0011-F017-01 21-Mar-12 Ray Robe NPR 11 18 Systematic 02NPR-S0011-F018-01 21-Mar-12 Ray Robe NPR 11 19 Systematic 02NPR-S0011-F019-01 21-Mar-12 Ray Robe NPR 11 20 Systematic 02NPR-S0011-F020-01 21-Mar-12 Ray Robe NPR 11 21 Systematic 02NPR-S0011-F021-01 21-Mar-12 Ray Robe NPR 11 22 Systematic 02NPR-S0011-F022-01 21-Mar-12 Ray Robe NPR 11 23 Characterization 02NPR-S0011-F023-01 01-May-12 Ray Robe NPR 11 24 Characterization 02NPR-S0011-F024-01 01-May-12 Ray Robe	$\overline{}$
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NPR 11 22 Systematic 02NPR-S0011-F022-01 21-Mar-12 Ray Robe NPR 11 23 Characterization 02NPR-S0011-F023-01 01-May-12 Ray Robe NPR 11 24 Characterization 02NPR-S0011-F024-01 01-May-12 Ray Robe	
NPR 11 23 Characterization 02NPR-S0011-F023-01 01-May-12 Ray Robe NPR 11 24 Characterization 02NPR-S0011-F024-01 01-May-12 Ray Robe	
NPR 11 24 Characterization 02NPR-S0011-F024-01 01-May-12 Ray Robe	
NPR 11 26 Post-Remediation 02NPR-S0011-F026-01 09-May-12 Joe Cunnir	
NPR 11 27 Systematic 02NPR-S0011-F027-01 31-May-12 Ray Robe	
NPR 11 28 Systematic 02NPR-S0011-F028-01 31-May-12 Ray Robe	$\overline{}$
NPR 11 29 Systematic 02NPR-S0011-F029-01 31-May-12 Ray Robe	
NPR 11 30 Systematic 02NPR-S0011-F030-01 31-May-12 Ray Robe	
NPR 11 31 Systematic 02NPR-S0011-F031-01 31-May-12 Ray Robe	
NPR 11 32 Systematic 02NPR-S0011-F032-01 31-May-12 Ray Robe	
NPR 11 33 Systematic 02NPR-S0011-F033-01 31-May-12 Ray Robe	$\overline{}$
NPR 11 34 Systematic 02NPR-S0011-F034-01 31-May-12 Ray Robe	_
NPR 11 35 Systematic 02NPR-S0011-F035-01 31-May-12 Ray Robe	
NPR 11 36 Systematic 02NPR-S0011-F036-01 31-May-12 Ray Robe	
NPR 11 37 Systematic 02NPR-S0011-F037-01 31-May-12 Ray Robe	
NPR 11 38 Systematic 02NPR-S0011-F038-01 31-May-12 Ray Robe	
NPR 11 39 Systematic 02NPR-S0011-F039-01 31-May-12 Ray Robe	
NPR 11 40 Systematic 02NPR-S0011-F040-01 31-May-12 Ray Robe	_
NPR 11 41 Systematic 02NPR-S0011-F041-01 31-May-12 Ray Robe	_
NPR 11 42 Systematic 02NPR-S0011-F042-01 31-May-12 Ray Robe	
NPR 11 43 Systematic 02NPR-S0011-F043-01 31-May-12 Ray Robe	
NPR 11 44 Systematic 02NPR-S0011-F044-01 31-May-12 Ray Robe	
NPR 11 45 Systematic 02NPR-S0011-F045-01 31-May-12 Ray Robe	
NPR 11 46 Systematic 02NPR-S0011-F046-01 31-May-12 Ray Robe	
NPR 11 47 Systematic 02NPR-S0011-F047-01 30-Oct-12 J Taylor/M	Winder
NPR 11 48 Systematic 02NPR-S0011-F048-01 30-Oct-12 J Taylor/M	Minder
NPR 11 49 Systematic 02NPR-S0011-F049-01 30-Oct-12 J Taylor/M	AAIIIIGGE
NPR 11 50 Systematic 02NPR-S0011-F050-01 30-Oct-12 J Taylor/M	
NPR 11 51 Systematic 02NPR-S0011-F051-01 30-Oct-12 J Taylor/M	Winder
NPR 11 52 Systematic 02NPR-S0011-F052-01 30-Oct-12 J Taylor/M	Winder Winder

	On-Site Laboratory (pCi/g)						
K-40	Ra-226	Cs-137	Bi-214	Pb-214			
20.62	0.8344	0	0.3923	0.5742			
21.17	0.8241	0.009509	0.492	0.6095			
17.35	0.7073	0.02243	0.3705	0.5909			
18.9	0.7509	0.01505	0.5162	0.5585			
22.38	1.032	-0.008317	0.5256	0.6765			
24.53	0.8591	-0.01114	0.733	0.7075			
9.392	0.3841	0.004186	0.2195	0.4254			
25.05	1.023	0.004033	0.5411	0.7411			
23.61	1.009	0	0.5528	0.7617			
18.09	1.131	-0.009382	0.7797	0.9428			
11.85	0.601	0.01005	0.4899	0.5222			
12.72	0.8059	-0.009666	0.3328	0.5829			
8.351	0.4574	-0.0001693	0.2701	0.4751			
20.64	1.168	0.03255	0.6401	0.5982			
11.77	1.143	0.01194	0.3707	0.4143			
14.89	0.7807	0.04492	0.3756	0.4204			
8.834	-0.2215	0	0.2512	0.3523			
15.5	1.038	0.0155	0.7	0.7635			
9.502	0.6919	0.01187	0.4181	0.3953			
8.227	0.643	0.0008957	0.1788	0.1434			
10.99	0.5979	0.0283	0.4605	0.4887			
4.688	-0.3132	0.009596	0.1495	0.174			
9.044	0.4833	0.0123	0.196	0.3266			
13.03	0.8089	0.0632	0.4108	0.4596			
12.62	0.5318	0.02155	0.4683	0.5034			
16.94	1.12	0.08753	0.4949	0.5502			
1.856	0.3806	0.004441	0.1239	0.1979			
1.343	0.1962	0.0007878	0.01734	0.1758			
1.147	0.1606	0.007908	0.05789	0.1973			
1.084	0.1755	0.005199	0.06314	0.07671			
1.655	0.2181	0.01352	0.07604	0.05306			
1.195	0.3406	0.002224	-0.005852	0.183			
1.553	0.6204	-0.00003543	0.1141	0.01256			
1.298	0	0.001312	0.0504	0.1889			
1.354	0.3353	-0.007342	0.07955	0.0622			
1.117	0.05995	-0.00221	0.054	0.1572			
0.6817	0.1337	0.002293	0.2482	0.09497			
1.06	0.1437	0	0.07294	0.07564			
0.9402	-0.03884	0	0.09427	0.07806			
0.8305	0	0.005108	0.1077	0.1186			
0.6744	-0.006658	0.006463	0.06961	-0.0219			
2.071	0.2002	0.01107	0.06897	0.1394			
0.8713	0.2076	-0.00007423	0.04136	0.09326			
1.102	0.3324	0.0006302	0.0374	0.1811			
2.274	-0.01217	0.005858	0.08534	0.0887			
1.303	0.1565	0.007445	0.07097	0.08395			
14.06	0.6371	0.005556	0.4196	0.4585			
12.14	0.2555	0.005146	0.4333	0.409			
9.099	0.25	-0.001031	0.1485	0.4051			
16.97	0.6765	-0.004835	0.5016	0.5628			
13.41	1.043	0.007397	0.4005	0.4926			
8.479	-0.03818	0.008437	0.3315	0.2834			

16.2	0.466	0.0343	0.466	0.629
16.6	0.567	0.0549	0.567	0.585
18.5	0.764	0.0328	0.764	0.872
26.3	0.772	0	0.772	0.85
8.17 0.341		0.0172	0.341	0.394
20.7	0.703	0.0141	0.703	0.773
18.5	0.643	0	0.643	0.675
16.2	1.03	0.00162	1.03	1.07
8.94	0.502	0.0307	0.502	0.354
11	0.58	0.0125	0.58	0.412
8.49	0.283	0.00658	0.283	0.42
17.2	0.553	-0.0298	0.553	0.435
10.4	0.5	0.0109	0.5	0.449
15.2	0.417	0.0296	0.417	0.538
9.28	0.468	0	0.468	0.457
12.8	0.9	0.00554	0.9	0.928
7.27	0.481	0	0.481	0.507
4.11	0.13	0.039	0.13	0.356
9.9	0.416	0.118	0.416	0.468
6.62	0.238	0.00237	0.238	0.428
4.04	0.0007		0.0007	0.400
1.24	0.0897	0 00000	0.0897	0.123
1.41	0.231	0.00922	0.231	0.23
1.41 1.18	0.231 0.0475	0.00922 0.0119	0.231 0.0475	0.23 0.15
1.41 1.18 1.25	0.231 0.0475 0.251	0.00922 0.0119 -0.011	0.231 0.0475 0.251	0.23 0.15 0.213
1.41 1.18 1.25 1.36	0.231 0.0475 0.251 0.0176	0.00922 0.0119 -0.011 0.000286	0.231 0.0475 0.251 0.0176	0.23 0.15 0.213 0.111
1.41 1.18 1.25 1.36 1.08	0.231 0.0475 0.251 0.0176 0.304	0.00922 0.0119 -0.011 0.000286 0	0.231 0.0475 0.251 0.0176 0.304	0.23 0.15 0.213 0.111 0.268
1.41 1.18 1.25 1.36 1.08 0.714	0.231 0.0475 0.251 0.0176 0.304 0.225	0.00922 0.0119 -0.011 0.000286 0 -0.0193	0.231 0.0475 0.251 0.0176 0.304 0.225	0.23 0.15 0.213 0.111 0.268 0.229
1.41 1.18 1.25 1.36 1.08 0.714 1.17	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445	0.23 0.15 0.213 0.111 0.268 0.229 0.0894
1.41 1.18 1.25 1.36 1.08 0.714 1.17	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725 0.0000477	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.253
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953 1.42 1.12	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.253 0.133
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725 0.0000477 -0.000771	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.253
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953 1.42 1.12	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00445 -0.00241 0.0202 -0.000725 0.0000477 -0.000771	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.123 0.133 0.195 0.14
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953 1.42 1.12 1.12	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725 0.0000477 -0.000771 0 -0.00329	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.123 0.123 0.195
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953 1.42 1.12 1.11 1.35	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107 0.157	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725 0.0000477 -0.000771 0 -0.00329 -0.00036	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107 0.157	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.123 0.195 0.14 0.289
1.41 1.18 1.25 1.36 1.08 0.714 1.17 1.58 1.3 1.23 1.36 1.41 0.953 1.42 1.12 1.11 1.35	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107 0.157	0.00922 0.0119 -0.011 0.000286 0 -0.0193 -0.0116 0.000263 -0.00445 -0.00409 -0.00241 0.0202 -0.000725 0.0000477 -0.000771 0 -0.00329 -0.00036	0.231 0.0475 0.251 0.0176 0.304 0.225 0.0445 0.08 0.125 0.1 0.0374 0.0294 0.0963 0.106 0.236 0.238 0.107 0.157	0.23 0.15 0.213 0.111 0.268 0.229 0.0894 0.237 0.151 0.177 0.223 0.0738 0.123 0.123 0.195 0.14 0.289

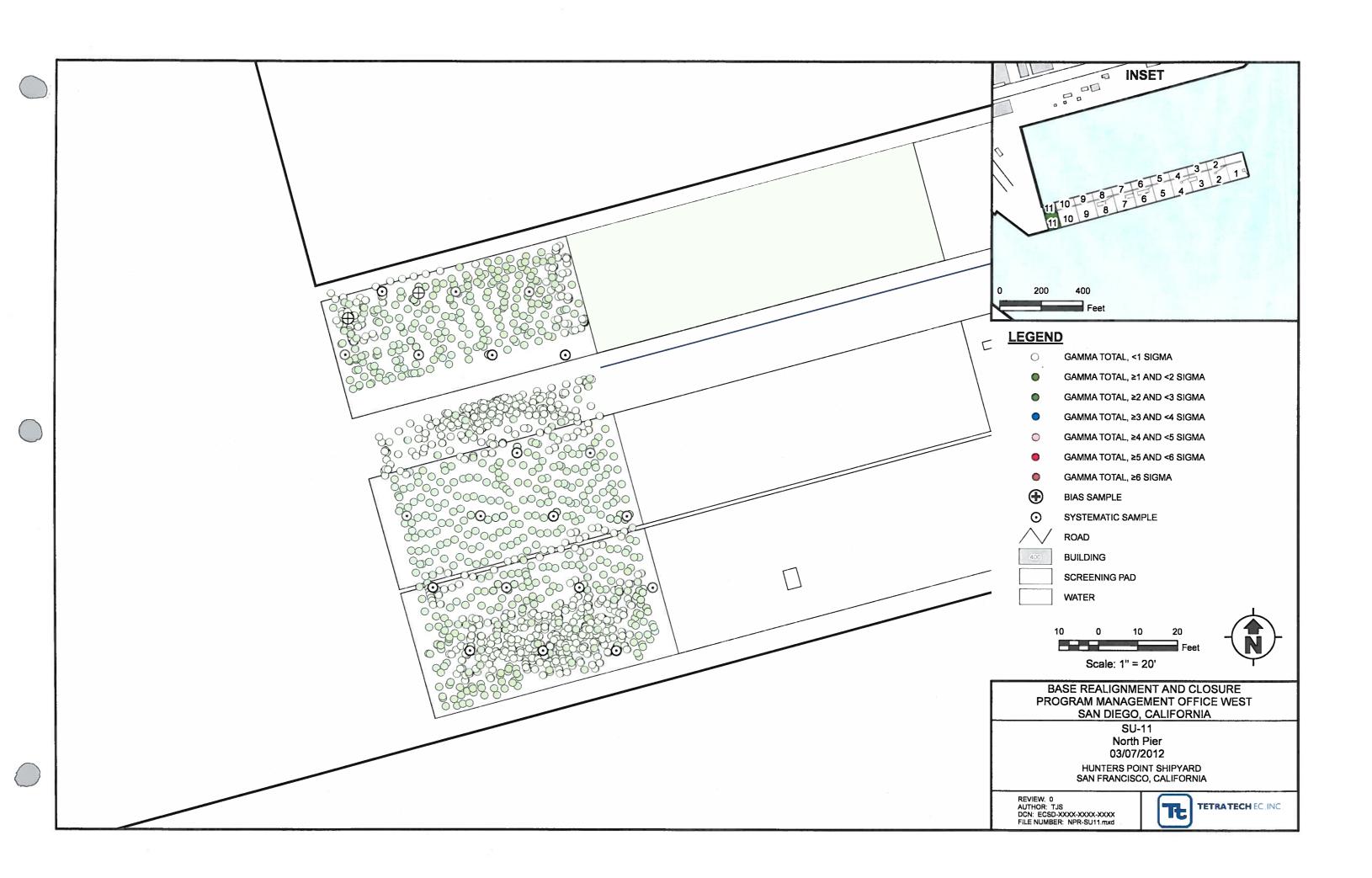
Off-Site Laboratory (pCi/g)

Area	Survey Unit	Sample Point	Sample Type	Sample (D)	Date Collected	COC Radiological Technician
NPR	11	53	Systematic	02NPR-S0011-F053-01	30-Oct-12	J Taylor/M Winder
NPR	11	54	Systematic	02NPR-S0011-F054-01	30-Oct-12	J Taylor/M Winder
NPR	11	55	Systematic	02NPR-S0011-F055-01	30-Oct-12	J Taylor/M Winder
NPR	_ 11	56	Systematic	02NPR-S0011-F056-01	30-Oct-12	J Taylor/M Winder
NPR	11	57	Systematic	02NPR-S0011-F057-01	30-Oct-12	J Taylor/M Winder
NPR	11	58	Systematic	02NPR-S0011-F058-01	30-Oct-12	J Taylor/M Winder
NPR	11	59	Systematic	02NPR-S0011-F059-01	30-Oct-12	J Taylor/M Winder
NPR	11	60	Systematic	02NPR-S0011-F060-01	30-Oct-12	J Taylor/M Winder
NPR	11	61	Systematic	02NPR-S0011-F061-01	30-Oct-12	J Taylor/M Winder
NPR	11	62	Systematic	02NPR-S0011-F062-01	30-Oct-12	J Taylor/M Winder
NPR	11	63	Systematic	02NPR-S0011-F063-01	30-Oct-12	J Taylor/M Winder
NPR	11	54	Systematic	U2iNPR-S0011-F064-01	30-Oct-12	J Taylor/M Winder
NPR	11	65	Systematic	02NPR-S0011-F065-01	30-Oct-12	J Taylor/M Winder
NPR	11	66	Systematic	02NPR-S0011-F066-01	30-Oct-12	J Taylor/M Winder

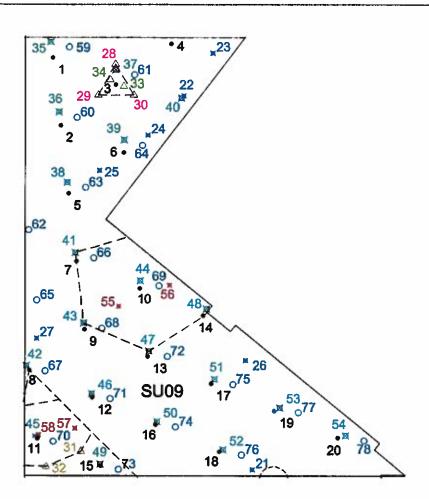
On-Site Laboratory (pCi/g)							
K-40	Ra-226	Cs-137	Bi-214	Pb-214			
7.729	0.7058	-0.001774	0.2842	0.2897			
7.245	0.3539	0.005391	0.1395	0.3227			
8.09	0.7814	-0.00497	0.2325	0.4314			
7.659	0.4121	-0.0006429	0.1912	0.2862			
7.622	0.7293	-0.008737	0.297	0.1676			
13.23	0.8045	0.009238	0.4011	0.3905			
10.76	0.7667	0.01065	0.1496	0.3622			
5.482	0.2624	0.01339	0.101	0.2512			
9.871	0.731	0.002692	0.3444	0.3717			
7.096	0.4656	0.004129	0.3798	0.356			
7.92	0.8474	0	0.2265	0.1184			
7.835	0.3401	-0.007842	0.1825	0.1433			
10.78	0.8868	0	0.379	0.4846			
4.761	0.2135	-0.001662	0.004619	0.04502			
485 (nCi/a)							

	NAME OF TAXABLE PARTY.	ite Laboratory		
K-40	Ra-226	Cs-137	Bi-214	Pb-214

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)







LEGEND:

- SYSTEMATIC 1 SAMPLES 1-20
- BIASED SAMPLES 21-27 21
- CHARACTERIZATION 1 SAMPLES 28-30 28
- POST REMEDIATION 1 SAMPLES 31-32 31
- POST REMEDIATION 2 SAMPLES 33-34 33
- SYSTEMATIC 2 SAMPLES 35-54 41
- POST REMEDIATION 3 SAMPLES 55-58 33
- SYSTEMATIC 3 SAMPLES 59-78
 - PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:30

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 9



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



TETRATECH EC. INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

1 11/22/2010 9:31 5453 5817 -364 479 BKGDSLA 7378 2 11/22/2010 9:32 5263 5817 554 479 BKGDSLA 7378 3 11/22/2010 9:33 6275 5817 458 479 BKGDSLA 7378 4 11/22/2010 9:35 7045 5817 1228 479 BKGDSLA 7378 5 11/22/2010 9:35 5194 5817 -623 479 BKGDSLA 7378 6 11/22/2010 9:36 5194 5817 -623 479 BKGDSLA 7378 6 11/22/2010 9:39 5833 5817 1035 479 BKGDSLA 7378 8 11/22/2010 9:40 5751 5817 -66 479 BKGDSLA 7378 9 11/22/2010 9:41 5912 5817 95 479 BKGDSLA 7378 9 11/22/2010 9:42 5912 5817 95 479 BKGDSLA 7378 10 11/22/2010 9:43 6968 5817 1151 479 BKGDSLA 7378 11 11/22/2010 9:45 5620 5817 -197 479 BKGDSLA 7378 11 11/22/2010 9:47 6001 5817 184 479 BKGDSLA 7378 11 11/22/2010 9:47 6001 5817 184 479 BKGDSLA 7378 14 11/22/2010 9:48 6658 5817 841 479 BKGDSLA 7378 15 11/22/2010 9:49 5193 5817 -624 479 BKGDSLA 7378 16 11/22/2010 9:51 6194 5817 377 479 BKGDSLA 7378 16 11/22/2010 9:52 7606 5817 17 479 BKGDSLA 7378 17 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 18 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 18 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 19 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 19 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 10 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 10 11/22/2010 9:55 6888 5817 1011 479 BKGDSLA 7378 11 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 12 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 13 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 14 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 15 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 15 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 15 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 15 11/30/2010 11:35 7835 5817 2636 479 BKGDSLA 7378 15 11/30/2010 11:35 7835 5817 2636 479 BKG	Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
3 11/22/2010 9:33 6275 5817 458 479-8KGDS1A 7378 4 11/22/2010 9:35 7045 5817 1228 479-8KGDS1A 7378 5 11/22/2010 9:35 5194 5817 -623 479-8KGDS1A 7378 6 11/22/2010 9:37 6852 5817 1035 479-8KGDS1A 7378 7 11/22/2010 9:40 5751 5817 -66 479-8KGDS1A 7378 8 11/22/2010 9:40 5751 5817 -66 479-8KGDS1A 7378 9 11/22/2010 9:41 5912 5817 95 479-8KGDS1A 7378 10 11/22/2010 9:43 6968 5817 1151 479-8KGDS1A 7378 11 11/22/2010 9:44 5337 5817 -480 479-8KGDS1A 7378 11 11/22/2010 9:45 5620 5817 -197 479-8KGDS1A 7378 12 11/22/2010 9:47 6001 5817 184 479-8KGDS1A 7378 14 11/22/2010 9:48 6658 5817 119 479-8KGDS1A 7378 15 11/22/2010 9:49 5193 5817 -624 479-8KGDS1A 7378 16 11/22/2010 9:51 6194 5817 377 479-8KGDS1A 7378 17 11/22/2010 9:52 7606 5817 1748 479-8KGDS1A 7378 18 11/22/2010 9:51 6194 5817 377 479-8KGDS1A 7378 19 11/22/2010 9:52 7606 5817 1288 479-8KGDS1A 7378 19 11/22/2010 9:54 8428 5817 1071 479-8KGDS1A 7378 20 11/22/2010 9:56 6951 5817 1134 479-8KGDS1A 7378 21 11/30/2010 11:30 8502 5817 1288 479-8KGDS1A 7378 22 11/30/2010 11:30 8502 5817 2495 479-8KGDS1A 7378 23 11/30/2010 11:30 8502 5817 2495 479-8KGDS1A 7378 24 11/30/2010 11:30 8502 5817 2495 479-8KGDS1A 7378 25 11/30/2010 11:30 8502 5817 1828 479-8KGDS1A 7378 26 11/30/2010 11:30 8502 5817 1828 479-8KGDS1A 7378 26 11/30/2010 11:30 8502 5817 1828 479-8KGDS1A 7378 27 11/30/2010 11:30 8502 5817 2495 479-8KGDS1A 7378 28 11/30/2010 11:30 8502 5817 1828 479-8KGDS1A 7378 29 1/7/2011 12:55 5603 5817 1220 479-8KGDS1A 7378 29 1/7/2011 12:55 5603 5817 -214 479-8KGDS1A 7378 29 1/7/2011 12:55 5603 5817 -214 479-8KGDS1A 7378 30 1/7/2011 12:55 5603 5817 -227 479-8KGDS1A 7378 31 1/20/2011 11:03 7655 5817 2054 479-8KGDS1A 7378	1	11/22/2010 9:31		The state of the s		479-BKGDS1A		
4 11/22/2010 9:35 7045 5817 1228 479-BKGDS1A 7378 5 11/22/2010 9:36 5194 5817 -623 479-BKGDS1A 7378 6 11/22/2010 9:37 6852 5817 1035 479-BKGDS1A 7378 7 11/22/2010 9:39 5833 5817 16 479-BKGDS1A 7378 8 11/22/2010 9:40 5751 5817 -66 479-BKGDS1A 7378 9 11/22/2010 9:41 5912 5817 95 479-BKGDS1A 7378 10 11/22/2010 9:43 6968 5817 1151 479-BKGDS1A 7378 11 11/22/2010 9:44 5337 5817 -480 479-BKGDS1A 7378 11 11/22/2010 9:45 5620 5817 -197 479-BKGDS1A 7378 12 11/22/2010 9:47 6001 5817 184 479-BKGDS1A 7378 13 11/22/2010 9:48 6658 5817 841 479-BKGDS1A 7378 14 11/22/2010 9:48 6658 5817 841 479-BKGDS1A 7378 15 11/22/2010 9:49 5193 5817 -624 479-BKGDS1A 7378 16 11/22/2010 9:51 6194 5817 377 479-BKGDS1A 7378 17 11/22/2010 9:52 7605 5817 1768 479-BKGDS1A 7378 18 11/22/2010 9:53 6888 5817 1071 479-BKGDS1A 7378 19 11/22/2010 9:54 6428 5817 2605 479-BKGDS1A 7378 20 11/22/2010 9:56 6951 5817 1134 479-BKGDS1A 7378 21 11/22/2010 9:56 6951 5817 1134 479-BKGDS1A 7378 22 11/30/2010 11:23 7635 5817 1134 479-BKGDS1A 7378 23 11/30/2010 11:31 7645 5817 1293 479-BKGDS1A 7378 24 11/30/2010 11:31 7645 5817 1337 479-BKGDS1A 7378 25 11/30/2010 11:31 7645 5817 1337 479-BKGDS1A 7378 26 11/30/2010 11:31 7645 5817 1337 479-BKGDS1A 7378 27 11/30/2010 11:35 7937 5817 2120 479-BKGDS1A 7378 28 11/30/2010 11:35 7937 5817 2120 479-BKGDS1A 7378 29 1/7/2011 12:55 7691 5817 2120 479-BKGDS1A 7378 29 1/7/2011 12:55 7691 5817 227 479-BKGDS1A 7378 30 1/7/2011 12:55 7691 5817 227 479-BKGDS1A 7378 31 1/20/2011 11:03 7605 5817 227 479-BKGDS1A 7378	2	11/22/2010 9:32	5263	5817	-554	479-BKGDS1A	7378	
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20 11/22/2010 9:56 6951 5817 1134 479-BKGDS1A 7378 21 11/30/2010 11:29 8746 5817 2929 479-BKGDS1A 7378 22 11/30/2010 11:30 8502 5817 2485 479-BKGDS1A 7378 23 11/30/2010 11:31 7645 5817 1828 479-BKGDS1A 7378 24 11/30/2010 11:33 7635 5817 1818 479-BKGDS1A 7378 25 11/30/2010 11:34 7154 5817 1337 479-BKGDS1A 7378 26 11/30/2010 11:35 7937 5817 2120 479-BKGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	18	11/22/2010 9:53	6888	5817	1071	479-BKGDS1A	7378	100 20 30 30 30
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22 11/30/2010 11:30 8502 5817 2485 479-8KGDS1A 7378 23 11/30/2010 11:31 7646 5817 1828 479-8KGDS1A 7378 24 11/30/2010 11:33 7635 5817 1818 479-8KGDS1A 7378 25 11/30/2010 11:34 7154 5817 1337 479-8KGDS1A 7378 26 11/30/2010 11:35 7937 5817 2120 479-8KGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-8KGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-8KGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-8KGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-8KGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-8KGDS1A 7378	20	11/22/2010 9:56	6951	5817	1134	479-BKGDS1A	7378	
23 11/30/2010 11:31 7645 5817 1828 479-BKGDS1A 7378 24 11/30/2010 11:33 7695 5817 1818 479-BKGDS1A 7378 25 11/30/2010 11:34 7154 5817 1337 479-BKGDS1A 7378 26 11/30/2010 11:35 7987 5817 2120 479-BKGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	21	11/30/2010 11:29	8746	5817	2929	479-BKGDS1A	7378	
24 11/30/2010 11:33 7695 5817 1818 479-BKGDS1A 7378 25 11/30/2010 11:34 7154 5817 1337 479-BKGDS1A 7378 26 11/30/2010 11:35 7987 5817 2120 479-BKGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	22	11/30/2010 11:30	8802	5817	2485	479-BKGDS1A	7378	
25 11/30/2010 11:34 7154 5817 1337 479-BKGDS1A 7378 26 11/30/2010 11:35 7987 5817 2120 479-BKGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	23	11/30/2010 11:31	7645	5817	1828	479-BKGDS1A	7378	
26 11/30/2010 11:35 7987 5817 2120 479-BKGDS1A 7378 27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	24	11/30/2010 11:33	7695	5817	1818	479-BKGDS1A	7378	
27 11/30/2010 11:37 7263 5817 1446 479-BKGDS1A 7378 28 1/7/2011 12:53 5603 5817 -214 479-BKGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	25	11/30/2010 11:34	7154	5817	1337	479-BKGDS1A	7378	
28 1/7/2011 12:53 5603 5817 -214 479-8KGDS1A 7378 29 1/7/2011 12:54 5590 5817 -227 479-8KGDS1A 7378 30 1/7/2011 12:55 7874 5817 2054 479-8KGDS1A 7378 31 1/20/2011 11:03 2608 5817 1792 479-8KGDS1A 7378	26	11/30/2010 11:35	7937	5817	2120	479-BKGDS1A	7378	79 - 4 12342
29 1/7/2011 12:54 5590 5817 -227 479-BKGDS1A 7378 30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	27	11/30/2010 11:37	7263	5817	1446	479-BKGDS1A	7378	
30 1/7/2011 12:55 7871 5817 2054 479-BKGDS1A 7378 31 1/20/2011 11:03 7608 5817 1792 479-BKGDS1A 7378	28	1/7/2011 12:53	5603	5817	-214	479-BKGDS1A	7378	2773390000
31 1/20/2011 11:03 7609 5817 1792 479-BKGDS1A 7378	29	1/7/2011 12:54	5590	5817	-227	479-BKGDS1A	7378	
	30	1/7/2011 12:55	7871	5817	2054	479-BKGDS1A	7378	
32 1/20/2011 11:04 7199 5817 1382 479-BKGDS1A 7378	31	1/20/2011 11:03	7609	5817	1792	479-BKGDS1A	7378	
	32	1/20/2011 11:04	7199	5817	1382	479-BKGDS1A	7378	



Area: 886.82 m² Count Time: 1 min Site Area: 707 Survey Unit: 9 Class: 1

кад #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
33	2/16/2011 13:47	4827	5817	-990	479-BKGDS1A	7378	
34	2/16/2011 13:48	4731	5817	-1086	479-BKGDS1A	7378	
35	3/8/2011 10:39	5390	5817	-427	479-BKGDS1A	7378	
36	3/8/2011 10:40	5370	5817	-447	479-BKGDS1A	7378	
37	3/8/2011 10:41	4790	5817	-1027	479-BKGDS1A	7378	1000
38	3/8/2011 10:42	6022	5817	205	479-BKGDS1A	7378	50-100
39	3/8/2011 10:44	6885	5817	1068	479-BKGDS1A	7378	
40	3/8/2011 10:45	7743	5817	1926	479-BKGDS1A	7378	
41	3/8/2011 10:46	6097	5817	280	479-BKGDS1A	7378	1000
42	3/8/2011 10:48	5509	5817	-308	479-BKGDS1A	7378	
43	3/8/2011 10:49	5981	5817	164	479-BKGDS1A	7378	
44	3/8/2011 10:50	7135	5817	1318	479-BKGDS1A	7378	
45	3/8/2011 10:51	5747	5817	-70	479-BKGDS1A	7378	20
46	3/8/2011 10:52	5756	5817	-61	479-BKGDS1A	7378	
47	3/8/2011 10:54	6362	5817	545	479-BKGDS1A	7378	
48	3/8/2011 10:55	6237	5817	420	479-BKGDS1A	7378	
49	3/8/2011 10:56	6315	5817	498	479-BKGDS1A	7378	
50	3/8/2011 10:57	6173	5817	356	479-BKGDS1A	7378	
51	3/8/2011 10:59	7335	5817	1518	479-BKGDS1A	7378	
52	3/8/2011 11:00	7095	5817	1278	479-BKGDS1A	7378	
53	3/8/2011 11:01	8136	5817	2319	479-BKGDS1A	7378	MAE TO
54	3/8/2011 11:02	7095	5817	1278	479-BKGDS1A	7378	
55	5/5/2011 15:26	5475	5817	-342	479-BKGDS1A	7378	5208
56	5/5/2011 15:28	5297	5817	-520	479-BKGDS1A	7378	
57	5/5/2011 15:29	6493	5817	676	479-BKGDS1A	7378	
58	5/5/2011 15:30	6694	5817	877	479-BKGDS1A	7378	
59	6/8/2011 10:19	5291	5873	-582	518-BKGDS1B	7049	
60	6/8/2011 10:20	5069	5873	-804	518-BKGDS1B	7049	
61	6/8/2011 10:22	6400	5873	527	518-BKGDS1B	7049	
62	6/8/2011 10:23	4872	5873	-1001	518-BKGDS1B	7049	
63	6/8/2011 10:25	6050	5873	177	518-BKGDS1B	7049	
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TETRATECH EC. INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
65	6/8/2011 10:27	5791	5873	-82	518-BKGDS1B	7049	
66	6/8/2011 10:28	5066	5873	-807	518-BKGDS1B	7049	
67	6/8/2011 10:30	5597	5873	-276	518-BKGDS1B	7049	
68	6/8/2011 10:31	5283	5873	-590	518-BKGDS1B	7049	
69	6/8/2011 10:32	4648	5873	-1225	518-BKGDS1B	7049	
70	6/8/2011 10:33	4868	5873	-1005	518-BKGDS1B	7049	1000
71	6/8/2011 10:34	4793	5873	-1080	518-BKGDS1B	7049	Wilder Control of the
72	6/8/2011 10:36	5932	5873	59	518-BKGDS1B	7049	
73	6/8/2011 10:37	5099	5873	-774	518-BKGDS1B	7049	
74	6/8/2011 10:38	5023	5873	-850	518-BKGDS1B	7049	
75	6/8/2011 10:39	4954	5873	-919	518-BKGDS1B	7049	
76	6/8/2011 10:58	5060	5873	-813	518-BKGDS1B	704 9	
77	6/8/2011 10:59	5085	5873	-788	518-BKGDS1B	7049	
78	6/8/2011 11:00	5014	5873	-859	518-BKGDS1B	7049	

Net Gamma cpm Summary

Min: -1225

Avg: 340

Max: 2929

St Dev: 1051

Readings > 3 σ investigation level are highlighted In blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Site Area: 707

Gamma Instrument and Reference Area Background Report

Area: 886.82 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Survey Unit: 9

2350 Identification #: 479

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430

Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-BKGDS1A Count Time (minutes): 1.00

Class: 1

Rdg #	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm):

5817

Standard Deviation:

520

Gamma 3σ Investigation

7378

Level (cpm):



Gamma Instrument and Reference Area Background Report

Area: 886.82 m²

Site Area: 707 Survey Unit: 9 Class: 1 A
Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 518

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 126182

Probe Serial #: 230161

Calibration Due Date: 11/17/2011

Reference Area Background Identification #: 518-BKGDS1B Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	03/01/2011 10:24	5734
2	03/01/2011 10:26	6197
3	03/01/2011 10:27	5923
4	03/01/2011 10:28	5458
5	03/01/2011 10:29	6885
6	03/01/2011 10:30	5930
7	03/01/2011 10:31	5459
8	03/01/2011 10:32	5899
9	03/01/2011 10:34	5865
10	03/01/2011 10:35	5347
11	03/01/2011 10:36	5470
12	03/01/2011 10:37	5852
13	03/01/2011 10:38	6022
14	03/01/2011 10:40	6222
15	03/01/2011 10:41	5742
16	03/01/2011 10:42	5119
17	03/01/2011 10:43	5970
18	03/01/2011 10:44	5959
19	03/01/2011 10:45	6120
20	03/01/2011 10:46	6291

Gamma Mean Background (cpm):

5873

Standard Deviation:

392

Gamma 3_o Investigation

7049

Level (cpm):



TETRATECH EC. INC. Gamma Direct Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m² Count Time: 1 min

Rdg #	Date / Time	Gross Gamma	Gamma Background		Background ID*	3σ Investigation	Comments
1	11/22/2010 7-27	CPM	СРМ	СРМ		Level (cpm)	
_	11/22/2010 7:27	72	72	0	513-BKGDS1A	133	
2	11/22/2010 7:29	58	72	-14	513-BKGDS1A	133	
3	11/22/2010 7:30	75	72	3	513-BKGDS1A	133	
4	11/22/2010 7:31	90	72	18	513-BKGDS1A	133	
5	11/22/2010 7:33	53	72	-19	513-BKGDS1A	133	
6	11/22/2010 7:34	68	72	-4	513-BKGDS1A	133	0 200
7	11/22/2010 7:36	67	72	- 5	513-BKGDS1A	133	
8	11/22/2010 7:38	63	72	-9	513-BKGDS1A	133	
9	11/22/2010 7:40	78	72	6	513-BKGDS1A	133	
10	11/22/2010 7:42	78	72	6	513-BKGDS1A	133	
11	11/22/2010 7:43	75	72	3	513-BKGDS1A	133	
12	11/22/2010 7:44	82	72	10	513-BKGDS1A	133	
13	11/22/2010 7:46	70	72	-2	513-BKGDS1A	133	
14	11/22/2010 7:47	78	72	6	513-BKGDS1A	133	
15	11/22/2010 7:49	66	72	-6	513-BKGDS1A	133	
16	11/22/2010 7:50	80	72	8	513-BKGDS1A	133	
17	11/22/2010 7:51	72	72	0	513-BKGDS1A	133	
18	11/22/2010 7:52	59	72	-13	513-BKGDS1A	133	
19	11/22/2010 7:54	87	72	15	513-BKGDS1A	133	At-
20	11/22/2010 7:55	66	72	-6	513-BKGDS1A	133	
21	11/30/2010 11:10	90	72	18	513-BKGDS1A	133	
22	11/30/2010 11:12	77	72	5	513-BKGDS1A	133	
23	11/30/2010 11:13	65	72	+7	513-BKGDS1A	133	
24	11/30/2010 11:15	73	72	1	513-BKGDS1A	133	
25	11/30/2010 11:16	88	72	16	513-BKGDS1A	133	
26	11/30/2010 11:18	95	72	23	513-BKGDS1A	-	
27	11/30/2010 11:23	78				133	
28	1/7/2011 11:44	72	72	6	513-BKGDS1A	133	
29			72	0	513-BKGDS1A	133	
	1/7/2011 11:45	67 CT	72	-5	513-BKGDS1A	133	<u></u>
30	1/7/2011 11:46	65	72	-7	513-BKGDS1A	133	
31	1/20/2011 11:04	105	72	33	513-BKGDS1A	133	
32	1/20/2011 11:06	77	72	5	513-BKGDS1A	133	



Class: 1 Area: 886.82 m² Count Time: 1 min Site Area: 707 Survey Unit: 9

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
33	2/16/2011 13:53	49	72	-23	513-BKGDS1A	133		
34	2/16/2011 13:55	57	72	-15	513-BKGDS1A	133		
35	3/8/2011 9:24	60	72	-12	513-BKGDS1A	133		
36	3/8/2011 9:25	56	72	-16	513-BKGDS1A	133		
37	3/8/2011 9:26	60	72	-12	513-BKGDS1A	133		
38	3/8/2011 9:28	44	72	-28	513-BKGDS1A	133		
39	3/8/2011 9:29	65	72	-7	513-BKGDS1A	133		
40	3/8/2011 9:30	57	72	-15	513-BKGDS1A	133	***************************************	
41	3/8/2011 9:32	65	72	-7	513-BKGDS1A	133		
42	3/8/2011 9:33	66	72	-6	513-BKGDS1A	133		
43	3/8/2011 9:34	67	72	-5	513-BKGDS1A	133		
44	3/8/2011 9:35	55	72	-17	513-BKGDS1A	133		
45	3/8/2011 9:37	56	72	-16	513-BKGDS1A	133		
46	3/8/2011 9:38	62	72	-10	513-BKGDS1A	133		
47	3/8/2011 9:39	75	72	3	513-BKGDS1A	133		
48	3/8/2011 9:40	63	72	-9	513-BKGDS1A	133		
49	3/8/2011 9:42	60	72	-12	513-BKGDS1A	133		
50	3/8/2011 9:43	62	72	-10	513-BKGDS1A	133		
51	3/8/2011 9:44	63	72	-9	513-BKGDS1A	133		1
52	3/8/2011 9:45	81	72	9	513-BKGDS1A	133		
53	3/8/2011 9:46	78	72	6	513-BKGDS1A	133		
54	3/8/2011 9:48	65	72	-7	513-BKGDS1A	133		
55	5/5/2011 15:20	75	72	3	513-BKGDS1A	133		
56	5/5/2011 15:21	76	72	4	513-BKGDS1A	133		
57	5/5/2011 15:22	77	72	5	513-BKGDS1A	133		1
58	5/5/2011 15:23	83	72	11	513-BKGDS1A	133		1
59	6/8/2011 9:25	72	72	0	513-BKGDS1A	133		
60	6/8/2011 9:26	75	72	3	513-BKGDS1A	133]
61	6/8/2011 9:28	70	72	-2	513-BKGDS1A	133		1
62	6/8/2011 9:37	73	72	1	513-BKGDS1A	133		
63	6/8/2011 9:38	59	72	-13	513-BKGDS1A	133		
64	6/8/2011 9:39	81	72	9	513-BKGDS1A	133		1
1.0								_



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	6/8/2011 9:41	84	72	12	513-BKGDS1A	133	
66	6/8/2011 9:42	78	72	6	513-BKGDS1A	133	
67	6/8/2011 9:44	67	72	-5	513-BKGDS1A	133	
68	6/8/2011 9:45	77	72	5	513-BKGDS1A	133	
69	6/8/2011 9:46	75	72	3	513-BKGDS1A	133	
70	6/8/2011 9:48	66	72	-6	513-BKGDS1A	133	
71	6/8/2011 9:49	65	72	-7	513-BKGDS1A	133	
72	6/8/2011 9:50	78	72	6	513-BKGDS1A	133	
73	6/8/2011 9:52	72	72	0	513-BKGDS1A	133	
74	6/8/2011 9:53	83	72	11	513-BKGDS1A	133	
75	6/8/2011 9:54	82	72	10	513-BKGDS1A	133	
76	6/8/2011 10:03	88	72	16	513-BKGDS1A	133	7.0
77	6/8/2011 10:04	75	72	3	513-8KGDS1A	133	
78	6/8/2011 10:06	86	72	14	513-BKGDS1A	133	

Net Gamma cpm

Min: -28

Summary

Avg: 0

Max: 33

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St Dev: 11

Readings > 3o investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements





Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments	
1	11/12/2010 7:34	56	72	-16	513-BKGDS1A	133		
2	11/12/2010 7:35	55	72	-17	513-BKGDS1A	133		
3	11/12/2010 7:35	47	72	-25	513-BKGDS1A	133		
1	11/12/2010 7:35	60	72	-12	513-BKGDS1A	133	2 1 10 - 3 1755.5:	
;	11/12/2010 7:36	59	72	-13	513-BKGDS1A	133		
5	11/12/2010 7:36	72	72	0	513-BKGDS1A	133		l
7	11/12/2010 7:36	79	72	7	513-BKGDS1A	133		
В	11/12/2010 7:36	60	72	-12	513-BKGDS1A	133		
9	11/12/2010 7:36	83	72	11	513-BKGDS1A	133		
10	11/12/2010 7:36	90	72	18	513-BKGDS1A	133		
11	11/12/2010 7:36	79	72	7	513-BKGDS1A	133		
12	11/12/2010 7:36	63	72	-9	513-BKGDS1A	133		
13	11/12/2010 7:36	103	72	31	513-BKGDS1A	133		Ì
14	11/12/2010 7:37	77	72	5	513-BKGDS1A	133		
15	11/12/2010 7:37	88	72	16	513-BKGDS1A	133		
16	11/12/2010 7:37	71	72	-1	513-BKGDS1A	133		
17	11/12/2010 7:37	70	72	-2	513-BKGDS1A	133		
18	11/12/2010 7:37	83	72	11	513-BKGDS1A	133		
19	11/12/2010 7:37	78	72	6	513-BKGDS1A	133		
20	11/12/2010 7:37	86	72	14	513-BKGDS1A	133		
21	11/12/2010 7:37	54	72	-18	513-BKGDS1A	133		
22	11/12/2010 7:37	82	72	10	513-BKGDS1A	133		
23	11/12/2010 7:38	80	72	8	513-BKGDS1A	133		
24	11/12/2010 7:38	80	72	8	513-BKGDS1A	133		
25	11/12/2010 7:38	83	72	11	513-BKGDS1A	133		
26	11/12/2010 7:38	55	72	-17	513-BKGDS1A	133		
27	11/12/2010 7:38	74	72	2	513-BKGDS1A	133	10	
28	11/12/2010 7:38	93	72	21	513-BKGDS1A	133		1
29	11/12/2010 7:38	75	72	3	513-BKGDS1A	133		
30	11/12/2010 7:38		72	3	513-BKGDS1A	133		
31	11/12/2010 7:39		72	-8	513-BKGDS1A	133		
32	11/12/2010 7:39		72	18	513-BKGDS1A	133		•





TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/12/2010 7:39	72	72	0	513-BKGDS1A	133	
34	11/12/2010 7:39	65	72	-7	513-BKGDS1A	133	
35	11/12/2010 7:39	85	72	13	513-BKGDS1A	133	
36	11/12/2010 7:39	72	72	0	513-BKGDS1A	133	
37	11/12/2010 7:39	66	72	-6	513-BKGDS1A	133	_
38	11/12/2010 7:39	65	72	-7	513-BKGDS1A	133	
39	11/12/2010 7:39	68	72	-4	513-BKGDS1A	133	
40	11/12/2010 7:40	75	72	3	513-BKGDS1A	133	30 30 30 4
41	11/12/2010 7:40	80	72	8	513-BKGDS1A	133	1. 1100.
42	11/12/2010 7:40	89	72	17	513-BKGDS1A	133	
43	11/12/2010 7:40	76	72	4	513-BKGDS1A	133	
44	11/12/2010 7:40	75	72	3	513-BKGDS1A	133	
45	11/12/2010 7:41	68	72	-4	513-BKGDS1A	133	
46	11/12/2010 7:41	104	72	32	513-BKGDS1A	133	1000
47	11/12/2010 7:41	61	72	-11	513-BKGDS1A	133	
48	11/12/2010 7:41	86	72	14	513-BKGDS1A	133	
49	11/12/2010 7:41	83	72	11	513-BKGDS1A	133	
50	11/12/2010 7:41	95	72	23	513-BKGD\$1A	133	
51	11/12/2010 7:42	69	72	-3	513-BKGDS1A	133	
52	11/12/2010 7:42	57	72	-15	513-BKGDS1A	133	
53	11/12/2010 7:42	43	72	-29	513-BKGDS1A	133	
54	11/12/2010 7:42	44	72	-28	513-BKGDS1A	133	
55	11/12/2010 7:42	44	72	-28	513-BKGDS1A	133	
56	11/12/2010 7:42	59	72	-13	513-BKGDS1A	133	
57	11/12/2010 7:42	46	72	26	513-BKGDS1A	133	
58	11/12/2010 7:42	63	72	-9	513-BKGD51A	133	
59	11/12/2010 7:42	60	72	-12	513-BKGDS1A	133	
60	11/12/2010 7:43	75	72	3	513-BKGDS1A	133	
61	11/12/2010 7:43	70	72	-2	513-BKGDS1A	133	
62	11/12/2010 7:43	76	72	4	513-BKGDS1A	133	
63	11/12/2010 7:43	80	72	8	513-BKGDS1A	133	
64	11/12/2010 7:43	72	72	0	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Area: 886.82 m² Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
65	11/12/2010 7:43	101	72	29	513-BKGDS1A	133	
66	11/12/2010 7:43	92	72	20	513-BKGDS1A	133	
67	11/12/2010 7:43	99	72	27	513-BKGDS1A	133	Land Med West Service
68	11/12/2010 7:44	108	72	36	513-BKGDS1A	133	
69	11/12/2010 7:44	76	72	4	513-BKGDS1A	133	
70	11/12/2010 7:44	66	72	-6	513-BKGDS1A	133	
71	11/12/2010 7:44	66	72	-6	513-BKGDS1A	133	
72	11/12/2010 7:44	71	72	-1	513-BKGDS1A	133	
73	11/12/2010 7:44	83	72	11	513-BKGDS1A	133	
74	11/12/2010 7:44	92	72	20	513-BKGDS1A	133	
75	11/12/2010 7:44	78	72	6	513-BKGDS1A	133	
76	11/12/2010 7:44	77	72	5	513-BKGDS1A	133	
77	11/12/2010 7:45	71	72	-1	513-BKGDS1A	133	
78	11/12/2010 7:45	76	72	4	513-BKGDS1A	133	
79	11/12/2010 7:45	132	72	60	513-BKGDS1A	133	
80	11/12/2010 7:45	93	72	21	513-BKGDS1A	133	
81	11/12/2010 7:45	66	72	-6	513-BKGDS1A	133	
82	11/12/2010 7:45	57	72	-15	513-BKGDS1A	133	
83	11/12/2010 7:45	70	72	-2	513-BKGDS1A	133	100/201
84	11/12/2010 7:45	63	72	-9	513-BKGDS1A	133	
85	11/12/2010 7:46	46	72	-26	513-BKGDS1A	133	
86	11/12/2010 7:46	66	72	-6	513-BKGDS1A	133	
87	11/12/2010 7:46	74	72	2	513-BKGDS1A	133	
88	11/12/2010 7:47	77	72	5	513-BKGDS1A	133	
89	11/12/2010 7:47	110	72	38	513-BKGDS1A	133	
90	11/12/2010 7:47	81	72	9	513-BKGDS1A	133	
91	11/12/2010 7:47		72	-3	513-BKGDS1A	133	
92	11/12/2010 7:47		72	-12	513-BKGDS1A	133	
93	11/12/2010 7:47	85	72	13	513-BKGDS1A	133	
94	11/12/2010 7:48		72	9	513-BKGDS1A	133	
95	11/12/2010 7:48		72	9	513-BKGDS1A	133	
96	11/12/2010 7:48		72	8	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	11/12/2010 7:48	118	72	46	513-BKGDS1A	133	
98	11/12/2010 7:48	114	72	42	513-BKGDS1A	133	
99	11/12/2010 7:48	86	72	14	513-BKGDS1A	133	
100	11/12/2010 7:48	120	72	48	513-BKGDS1A	133	
101	11/12/2010 7:48	96	72	24	513-BKGDS1A	133	
102	11/12/2010 7:48	96	72	24	513-BKGDS1A	133	
103	11/12/2010 7:49	121	72	49	513-BKGDS1A	133	
104	11/12/2010 7:49	81	72	9	513-BKGDS1A	133	
105	11/12/2010 7:49	103	72	31	513-BKGDS1A	133	
106	11/12/2010 7:49	86	72	14	513-BKGDS1A	133	
107	11/12/2010 7:49	96	72	24	513-BKGDS1A	133	
108	11/12/2010 7:49	82	72	10	513-BKGDS1A	133	
109	11/12/2010 7:49	66	72	-6	513-BKGDS1A	133	
110	11/12/2010 7:49	67	72	-5	513-BKGDS1A	133	
111	11/12/2010 7:50	63	72	-9	513-BKGDS1A	133	
112	11/12/2010 7:50	46	72	-26	513-BKGDS1A	133	
113	11/12/2010 7:50	71	72	-1	513-BKGDS1A	133	
114	11/12/2010 7:50	83	72	11	513-BKGDS1A	133	
115	11/12/2010 7:50	92	72	20	513-BKGDS1A	133	
116	11/12/2010 7:50	86	72	14	513-BKGD\$1A	133	
117	11/12/2010 7:50	89	72	17	513-BKGDS1A	133	
118	11/12/2010 7:50	97	72	25	513-BKGDS1A	133	
119	11/12/2010 7:50	77	72	5	513-BKGDS1A	133	
120	11/12/2010 7:51	54	72	-18	513-BKGDS1A	133	
121	11/12/2010 7:51	43	72	-29	513-BKGDS1A	133	4000
122	11/12/2010 7:51	60	72	-12	513-BKGDS1A	133	
123	11/12/2010 7:51	65	72	-7	513-BKGDS1A	133	
124	11/12/2010 7:51	52	72	-20	513-BKGDS1A	133	
125	11/12/2010 7:51	60	72	-12	513-BKGDS1A	133	
126	11/12/2010 7:51	57	72	-15	513-BKGDS1A	133	
127	11/12/2010 7:51	58	72	-14	513-BKGDS1A	133	
128	11/12/2010 7:52	56	72	-16	513-BKGDS1A	133	10 - 2 10 2 - 2 10 10 - 2 10 10 10 10 10 10 10 10 10 10 10 10 10



Area: 886.82 m² Class: 1 Site Area: 707 Survey Unit: 9

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
129	11/12/2010 7:52	63	72	-9	513-BKGDS1A	133	
130	11/12/2010 7:53	43	72	-29	513-BKGDS1A	133	
L31	11/12/2010 7:53	66	72	-6	513-BKGDS1A	133	
132	11/12/2010 7:53	68	72	-4	513-BKGDS1A	133	
133	11/12/2010 7:54	65	72	-7	513-BKGDS1A	133	
134	11/12/2010 7:54	86	72	14	513-BKGDS1A	133	
135	11/12/2010 7:54	70	72	-2	513-BKGDS1A	133	
136	11/12/2010 7:54	69	72	-3	513-BKGDS1A	133	Carried Street Control of Control
137	11/12/2010 7:54	79	72	7	513-BKGDS1A	133	
138	11/12/2010 7:54	60	72	-12	513-BKGDS1A	133	
139	11/12/2010 7:54	69	72	-3	513-BKGDS1A	133	
140	11/12/2010 7:55	57	72	-15	513-BKGDS1A	133	
141	11/12/2010 7:55	65	72	-7	513-BKGDS1A	133	
142	11/12/2010 7:55	53	72	-19	513-BKGDS1A	133	
143	11/12/2010 7:55	61	72	-11	513-BKGDS1A	133	
144	11/12/2010 7:55	56	72	-16	513-BKGDS1A	133	
145	11/12/2010 7:55	55	72	-17	513-BKGDS1A	133	
146	11/12/2010 7:55	47	72	-25	513-BKGDS1A	133	
147	11/12/2010 7:55	75	72	3	513-BKGDS1A	133	
148	11/12/2010 7:56	102	72	30	513-BKGDS1A	133	No sugar sugar
149	11/12/2010 7:56	93	72	21	513-BKGDS1A	133	
150	11/12/2010 7:56	86	72	14	513-BKGDS1A	133	
151	11/12/2010 7:56	101	72	29	513-BKGDS1A	133	
152	11/12/2010 7:56	88	72	16	513-BKGDS1A	133	
153	11/12/2010 7:56	66	72	-6	513-BKGDS1A	133	
154	11/12/2010 7:56		72	0	513-BKGDS1A	133	The second secon
155	11/12/2010 7:56		72	19	513-BKGDS1A	133	
156	11/12/2010 7:56	-	72	14	513-BKGDS1A	133	
157	11/12/2010 7:57		72	-7	513-BKGDS1A	133	
158	11/12/2010 7:57	···	72	6	513-BKGDS1A	133	
159	11/12/2010 7:57		72	27	513-BKGDS1A	133	
160	11/12/2010 7:57		72	-6	513-BKGDS1A	133	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
161	11/12/2010 7:57	60	72	-12	513-BKGDS1A	133	
162	11/12/2010 7:57	73	72	1	513-BKGDS1A		
_						133	
163	11/12/2010 7:57	88	72	16	513-BKGDS1A	133	
164	11/12/2010 7:57	79	72	7	513-BKGDS1A	133	
165	11/12/2010 7:58	68	72	-4	513-BKGDS1A	133	
166	11/12/2010 7:58	53	72	-19	513-BKGDS1A	133	
167	11/12/2010 7:58	65	72	-7	513-BKGDS1A	133	
168	11/12/2010 7:58	85	72	13	513-BKGDS1A	133	
169	11/12/2010 7:58	84	72	12	513-BKGDS1A	133	
170	11/12/2010 7:58	79	72	7	513-BKGDS1A	133	
171	11/12/2010 7:59	76	72	4	513-BKGDS1A	133	
172	11/12/2010 7:59	79	72	7	513-BKGDS1A	133	
173	11/12/2010 7:59	89	72	17	513-BKGDS1A	133	
174	11/12/2010 8:00	107	72	35	513-BKGDS1A	133	
175	11/12/2010 8:00	87	72	15	513-BKGDS1A	133	
176	11/12/2010 8:00	64	72	-8	513-BKGDS1A	133	
177	11/12/2010 8:00	55	72	-17	513-BKGDS1A	133	
178	11/12/2010 8:00	75	72	3	513-BKGDS1A	133	
179	11/12/2010 8:00	48	72	-24	513-BKGDS1A	133	
180	11/12/2010 8:00	48	72	-24	513-BKGDS1A	133	
181	11/12/2010 8:00	58	72	-14	513-BKGDS1A	133	
182	11/12/2010 8:00	58	72	-14	513-BKGDS1A	133	
183	11/12/2010 8:01	78	72	6	513-BKGDS1A	133	Vinda
184	11/12/2010 8:01	63	72	-9	513-BKGDS1A	133	
185	11/12/2010 8:01	88	72	16	513-BKGDS1A	133	
186	11/12/2010 8:01	104	72	32	513-BKGDS1A	133	
187	11/12/2010 8:01	101	72	29	513-BKGDS1A	133	
188	11/12/2010 8:01	120	72	48	513-BKGDS1A	133	
189	11/12/2010 8:01	92	72	20	513-BKGDS1A	133	
190	11/12/2010 8:01	74	72	2	513-BKGDS1A	133	esta a
191	11/12/2010 8:02	64	72	-8	513-BKGDS1A	133	
192	11/12/2010 8:02	65	72	-7	513-BKGDS1A	133	10 - April 10 - 10 - 10



Area: 886.82 m² Class: 1 Site Area: 707 Survey Unit: 9

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
193	11/12/2010 8:02	94	72	22	513-BKGDS1A	133	
194	11/12/2010 8:02	92	72	20	513-BKGDS1A	133	
195	11/12/2010 8:02	77	72	5	513-BKGDS1A	133	
196	11/12/2010 8:02	88	72	16	513-BKGDS1A	133	
197	11/12/2010 8:02	62	72	-10	513-BKGDS1A	133	
198	11/12/2010 8:02	56	72	-16	513-BKGDS1A	133	
199	11/12/2010 8:02	75	72	3	513-BKGDS1A	133	
200	11/12/2010 8:03	104	72	32	513-BKGDS1A	133	
201	11/12/2010 8:03	73	72	1	513-BKGDS1A	133	
202	11/12/2010 8:03	71	72	-1	513-BKGDS1A	133	
203	11/12/2010 8:03	75	72	3	513-BKGDS1A	133	
204	11/12/2010 8:03	75	72	3	513-BKGDS1A	133	
205	11/12/2010 8:03	67	72	-5	513-BKGDS1A	133	
206	11/12/2010 8:03	56	72	-16	513-BKGDS1A	133	
207	11/12/2010 8:03	59	72	-13	513-BKGDS1A	133	
208	11/12/2010 8:04	60	72	-12	513-BKGDS1A	133	
209	11/12/2010 8:04	83	72	11	513-BKGDS1A	133	
210	11/12/2010 8:04	71	72	-1	513-BKGDS1A	133	
211	11/12/2010 8:04	91	72	19	513-BKGDS1A	133	
212	11/12/2010 8:05	82	72	10	513-BKGDS1A	133	950 963
213	11/12/2010 8:05	86	72	14	513-BKGDS1A	133	
214	11/12/2010 8:05	89	72	17	513-BKGDS1A	133	
215	11/12/2010 8:05	92	72	20	513-BKGDS1A	133	
216	11/12/2010 8:05	87	72	15	513-BKGDS1A	133	
217	11/12/2010 8:05	88	72	16	513-BKGDS1A	133	
218	11/12/2010 8:05	65	72	-7	513-BKGDS1A	133	
219	11/12/2010 8:06		72	-23	513-BKGDS1A	133	
220	11/12/2010 8:06		72	-21	513-BKGDS1A	133	
221	11/12/2010 8:06		72	-26	513-BKGDS1A	133	N YES
222	11/12/2010 8:06		72	-4	513-BKGDS1A	133	
223	11/12/2010 8:06		72	-18	513-BKGDS1A	133	
224	11/12/2010 8:06		72	-6	513-BKGDS1A	133	



Site Area: 707 Area: 886.82 m² Survey Unit: 9 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
225	11/12/2010 8:06	64	72	-8	513-BKGDS1A	133	
226	11/12/2010 8:06	78	72	6	513-BKGDS1A	133	
227	11/12/2010 8:07	97	72	25	513-BKGDS1A	133	
228	11/12/2010 8:07	95	72	23	513-BKGDS1A	133	
229	11/12/2010 8:07	64	72	-8	513-BKGDS1A	133	
230	11/12/2010 8:07	99	72	27	513-BKGDS1A	133	
231	11/12/2010 8:07	79	72	7	513-BKGDS1A	133	
232	11/12/2010 8:07	68	72	-4	513-BKGDS1A	133	
233	11/12/2010 8:07	60	72	-12	513-BKGDS1A	133	
234	11/12/2010 8:07	72	72	0	513-BKGDS1A	133	
235	11/12/2010 8:07	51	72	-21	513-BKGDS1A	133	78.5
236	11/12/2010 8:08	83	72	11	513-BKGDS1A	133	200 10.00 -1.2522
237	11/12/2010 8:08	66	72	-6	513-BKGDS1A	133	
238	11/12/2010 8:08	65	72	-7	513-BKGDS1A	133	
239	11/12/2010 8:08	79	72	7	513-BKGDS1A	133	
240	11/12/2010 8:08	108	72	36	513-BKGDS1A	133	
241	11/12/2010 8:08	126	72	54	513-BKGDS1A	133	
242	11/12/2010 8:08	133	72	61	513-BKGDS1A	133	
243	11/12/2010 8:08	114	72	42	513-BKGDS1A	133	
244	11/12/2010 8:08	132	72	60	513-BKGDS1A	133	
245	11/12/2010 8:09	98	72	26	513-BKGDS1A	133	
246	11/12/2010 8:09	94	72	22	513-BKGDS1A	133	
247	11/12/2010 8:09	124	72	52	513-BKGDS1A	133	
248	11/12/2010 8:09	108	72	36	513-BKGDS1A	133	
249	11/12/2010 8:09	91	72	19	513-BKGDS1A	133	
250	11/12/2010 8:09	90	72	18	513-BKGDS1A	133	
251	11/12/2010 8:09	77	72	5	513-BKGDS1A	133	
252	11/12/2010 8:12	52	72	-20	513-BKGDS1A	133	
253	11/12/2010 8:12	52	72	-20	513-BKGDS1A	133	
254	11/12/2010 8:12	61	72	-11	513-BKGDS1A	133	72 32 82
255	11/12/2010 8:12	86	72	14	513-BKGDS1A	133	
256	11/12/2010 8:13	62	72	-10	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

Rdg #							
	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
257	11/12/2010 8:13	96	72	24	513-BKGDS1A	133	
258	11/12/2010 8:13	84	72	12	513-BKGDS1A	133	
259	11/12/2010 8:13	67	72	-5	513-BKGDS1A	133	
260	11/12/2010 8:13	79	72	7	513-BKGDS1A	133	JUNE 1982 20 20 S.
261	11/12/2010 8:13	74	72	2	513-BKGDS1A	133	an are the second
262	11/12/2010 8:13	87	72	15	513-BKGDS1A	133	
263	11/12/2010 8:13	89	72	17	513-BKGDS1A	133	
264	11/12/2010 8:14	78	72	6	513-BKGDS1A	133	
265	11/12/2010 8:14	94	72	22	513-BKGDS1A	133	
266	11/12/2010 8:14	98	72	26	513-BKGDS1A	133	
267	11/12/2010 8:14	84	72	12	513-BKGDS1A	133	
268	11/12/2010 8:14	87	72	15	513-BKGDS1A	133	
269	11/12/2010 8:14	68	72	-4	513-BKGDS1A	133	
270	11/12/2010 8:14	59	72	-13	513-BKGDS1A	133	
271	11/12/2010 8:14	64	72	-8	513-BKGDS1A	133	
272	11/12/2010 8:14	66	72	-6	513-BKGDS1A	133	
273	11/12/2010 8:15	65	72	-7	513-BKGDS1A	133	
274	11/12/2010 8:15	86	72	14	513-BKGDS1A	133	
275	11/12/2010 8:15	71	72	-1	513-BKGDS1A	133	
276	11/12/2010 8·15	53	72	-19	513-BKGDS1A	133	UL CONT
277	11/12/2010 8:15	58	72	-14	513-BKGDS1A	133	Ju (20)
278	11/12/2010 8:15	59	72	-13	513-BKGDS1A	133	Transfer of the second
279	11/12/2010 8:15	83	72	11	513-BKGDS1A	133	
280	11/12/2010 8:15	59	72	-13	513-BKGDS1A	133	C114.000 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
281	11/12/2010 8:16	62	72	-10	513-BKGDS1A	133	
282	11/12/2010 8:16	73	72	1	513-BKGDS1A	133	
283	11/12/2010 8:16	45	72	-27	513-BKGDS1A	133	
284	11/12/2010 8:16	48	72	-24	513-BKGDS1A	133	
285	11/12/2010 8:16		72	-9	513-BKGDS1A	133	
286	11/12/2010 8:16		72	4	513-BKGDS1A	133	
287	11/12/2010 8:16		72	-12	513-BKGDS1A	133	4/
288	11/12/2010 8:16		72	15	513-BKGDS1A	133	



TETRATECHEC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
289	11/12/2010 8:16	77	72	5	513-BKGDS1A	133	
290	11/12/2010 8:17	71	72	-1	513-BKGDS1A	133	CALL PROPERTY OF THE PARTY OF T
291	11/12/2010 8:18	87	72	15	513-BKGDS1A	133	
292	11/12/2010 8:18	75	72	3	513-BKGDS1A	133	
293	11/12/2010 8:18	54	72	-18	513-BKGDS1A	133	
294	11/12/2010 8:18	50	72	-22	513-BKGDS1A	133	**************************************
295	11/12/2010 8:19	49	72	-23	513-BKGDS1A	133	-0
296	11/12/2010 8:19	65	72	-7	513-BKGDS1A	133	
297	11/12/2010 8:19	45	72	-27	513-BKGDS1A	133	
298	11/12/2010 8:19	50	72	-22	513-BKGDS1A	133	
299	11/12/2010 8:19	91	72	19	513-BKGDS1A	133	
300	11/12/2010 8:19	128	72	56	513-BKGDS1A	133	
301	11/12/2010 8:19	114	72	42	513-BKGDS1A	133	
302	11/12/2010 8:19	87	72	15	513-BKGDS1A	133	
303	11/12/2010 8:19	54	72	-18	513-BKGDS1A	133	
304	11/12/2010 8:20	80	72	8	513-BKGDS1A	133	
305	11/12/2010 8:20	127	72	55	513-BKGDS1A	133	
306	11/12/2010 8:20	104	72	32	513-BKGDS1A	133	
307	11/12/2010 8:20	106	72	34	513-BKGDS1A	133	
308	11/12/2010 8:20	82	72	10	513-BKGDS1A	133	- 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 10000 - 100000 - 100000 - 100000 - 100000 - 100000 - 100000
309	11/12/2010 8:20	75	72	3	513-BKGDS1A	133	
310	11/12/2010 8:20	80	72	8	513-BKGDS1A	133	
311	11/12/2010 8:20	84	72	12	513-BKGDS1A	133	
312	11/12/2010 8:20	84	72	12	513-BKGDS1A	133	
313	11/12/2010 8:21	86	72	14	513-BKGDS1A	133	50
314	11/12/2010 8:21	72	72	0	513-BKGDS1A	133	
315	11/12/2010 8:21	57	72	-15	513-BKGDS1A	133	
316	11/12/2010 8:21	60	72	-12	513-BKGDS1A	133	
317	11/12/2010 8:21	70	72	-2	513-BKGDS1A	133	7.
318	11/12/2010 8:21	53	72	-19	513-BKGDS1A	133	
319	11/12/2010 8:21	69	72	-3	513-BKGDS1A	133	
320	11/12/2010 8:21	94	72	22	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
321	11/12/2010 8:22	93	72	21	513-BKGDS1A	133		
322	11/12/2010 8:22	103	72	31	513-BKGDS1A	133		
323	11/12/2010 8:22	131	72	59	513-BKGDS1A	133		
324	11/12/2010 8:22	123	72	51	513-BKGDS1A	133		
325	11/12/2010 8:22	66	72	-6	513-BKGDS1A	133		
326	11/12/2010 8:22	61	72	-11	513-BKGDS1A	133		
327	11/12/2010 8:22	52	72	-20	513-BKGDS1A	133		
328	11/12/2010 8:22	60	72	-12	513-BKGDS1A	133		
329	11/12/2010 8:23	83	72	11	513-BKGDS1A	133		
330	11/12/2010 8:23	82	72	10	513-BKGDS1A	133		
331	11/12/2010 8:23	80	72	8	513-BKGDS1A	133	a mile	
332	11/12/2010 8:23	67	72	-5	513-BKGDS1A	133		_
333	11/12/2010 8:23	64	72	-8	513-BKGDS1A	133		(
334	11/12/2010 8:23	81	72	9	513-BKGDS1A	133		
335	11/12/2010 8:24	104	72	32	513-BKGDS1A	133	-14	
336	11/12/2010 8:24	107	72	35	513-BKGDS1A	133		
337	11/12/2010 8:24	88	72	16	513-BKGDS1A	133		
338	11/12/2010 8:24	86	72	14	513-BKGDS1A	133		
339	11/12/2010 8:24	93	72	21	513-BKGDS1A	133		
340	11/12/2010 8:24	95	72	23	513-BKGDS1A	133		
341	11/12/2010 8:24	102	72	30	513-BKGDS1A	133	199	
342	11/12/2010 8:24	64	72	-8	513-BKGDS1A	133		
343	11/12/2010 8:25	76	72	4	513-BKGDS1A	133	The state of the s	
344	11/12/2010 8:25	72	72	0	513 BKGDS1A	133		l
345	11/12/2010 8:25	53	72	-19	513 BKGDS1A	133		Ì
346	11/12/2010 8:25		72	-10	513-BKGDS1A	133		ĺ
347	11/12/2010 8:25		72	-22	513-BKGDS1A	133		١
348	11/12/2010 8:25		72	0	513-BKGDS1A	133		ĺ
349	11/12/2010 8:25		72	14	513-BKGDS1A	133		ĺ
350	11/12/2010 8:25		72	-5	513-BKGDS1A	133		ĺ
351	11/12/2010 8:25		72	4	513-BKGDS1A	133		
352	11/12/2010 8:26		72	13	513-BKGDS1A	133		Î



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
353	11/12/2010 8:26	72	72	0	513-BKGDS1A	133	
354	11/12/2010 8:26	72	72	0	513-BKGDS1A	133	
355	11/12/2010 8:26	74	72	2	513-BKGD\$1A	133	
356	11/12/2010 8:26	71	72	-1	513-BKGD\$1A	133	
357	11/12/2010 8:26	60	72	-12	513-BKGDS1A	133	
358	11/12/2010 8:26	47	72	-25	513-BKGDS1A	133	
359	11/12/2010 8:26	61	72	-11	513-BKGDS1A	133	
360	11/12/2010 8:27	66	72	-6	513-BKGDS1A	133	
361	11/12/2010 8:27	82	72	10	513-BKGDS1A	133	
362	11/12/2010 8:27	54	72	-18	513-BKGDS1A	133	
363	11/12/2010 8:27	43	72	-29	513-BKGDS1A	133	EACH TO SERVICE STATE OF THE S
364	11/12/2010 8:27	42	72	-30	513-BKGDS1A	133	2841543 23(3) 000HU
365	11/12/2010 8:27	61	72	-11	513-BKGDS1A	133	
366	11/12/2010 8:28	56	72	-16	513-BKGDS1A	133	
367	11/12/2010 8:28	46	72	-26	513-BKGDS1A	133	1771
368	11/12/2010 8:28	57	72	-15	513-BKGDS1A	133	
369	11/12/2010 8:28	77	72	5	513-BKGDS1A	133	
370	11/12/2010 8:28	60	72	-12	513-BKGDS1A	133	
371	11/12/2010 8:29	65	72	-7	513-BKGDS1A	133	
372	11/12/2010 8:29	78	72	6	513-BKGDS1A	133	
373	11/12/2010 8:29	46	72	-26	513-BKGDS1A	133	
374	11/12/2010 8:29	44	72	-28	513-BKGDS1A	133	
375	11/12/2010 8:29	63	72	-9	513-BKGDS1A	133	
376	11/12/2010 8:29	59	72	-13	513-BKGDS1A	133	
377	11/12/2010 8:29	49	72	-23	513-BKGDS1A	133	
378	11/12/2010 8:29	51	72	-21	513-BKGDS1A	133	
379	11/12/2010 8:30	67	72	-5	513-BKGD\$1A	133	
380	11/12/2010 8:30	58	72	-14	513-BKGDS1A	133	
381	11/12/2010 8:30	52	72	-20	513-BKGDS1A	133	
382	11/12/2010 8:30	57	72	-15	513-BKGDS1A	133	
383	11/12/2010 8:30	51	72	-21	513-BKGDS1A	133	
384	11/12/2010 8:30	57	72	-15	513-BKGDS1A	133	



Area: 886.82 m² Class: 1 Site Area: 707 Survey Unit: 9

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
385	11/12/2010 8:30	60	72	-12	513-BKGDS1A	133	
386	11/12/2010 8:30	58	72	-14	513-BKGDS1A	133	
387	11/12/2010 8:30	69	72	-3	513-BKGDS1A	133	
388	11/12/2010 8:31	67	72	-5	513-BKGDS1A	133	
389	11/12/2010 8:31	68	72	-4	513-BKGDS1A	133	232
390	11/12/2010 8:31	103	72	31	513-BKGDS1A	133	
391	11/12/2010 8:31	86	72	14	513-BKGDS1A	133	
392	11/12/2010 8:31	81	72	9	513-BKGDS1A	133	The second secon
393	11/12/2010 8:31	73	72	1	513-BKGDS1A	133	
394	11/12/2010 8:31	44	72	-28	513-BKGDS1A	133	
395	11/12/2010 8:31	72	72	0	513-BKGDS1A	133	
396	11/12/2010 8:32	64	72	-8	513-BKGDS1A	133	
397	11/12/2010 8:32	96	72	24	513-BKGDS1A	133	
398	11/12/2010 8:32	94	72	22	513-BKGDS1A	133	
399	11/12/2010 8:32	76	72	4	513-BKGDS1A	133	
400	11/12/2010 8:32	113	72	41	513-BKGDS1A	133	<u> </u>
401	11/12/2010 8:32	93	72	21	513-BKGDS1A	133	
402	11/12/2010 8:32	110	72	38	513-BKGDS1A	133	
403	11/12/2010 8:32	106	72	34	513-BKGDS1A	133	
404	11/12/2010 8:32	92	72	20	513-BKGDS1A	133	
405	11/12/2010 8:33	66	72	-6	513-BKGDS1A	133	
406	11/12/2010 8:33	82	72	10	513-BKGDS1A	133	34.34.35
407	11/12/2010 8:33	81	72	9	513-BKGDS1A	133	
408	11/12/2010 8:33	81	72	9	513-BKGDS1A	133	
409	11/12/2010 8:33	71	72	-1	513-BKGDS1A	133	
410	11/12/2010 8:33	59	72	-13	513-BKGDS1A	133	
411	11/12/2010 8:33	65	72	-7	513-BKGDS1A	133	
412	11/12/2010 8:34	75	72	3	513-BKGDS1A	133	
413	11/12/2010 8:34	66	72	-6	513-BKGDS1A	133	
414	11/12/2010 8:34	74	72	2	513-BKGDS1A	133	
415	11/12/2010 8:34	62	72	-10	513-BKGDS1A	133	
416	11/12/2010 8:34	70	72	-2	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
417	11/12/2010 8:34	74	72	2	513-BKGDS1A	133	
418	11/12/2010 8:34	86	72	14	513-BKGDS1A	133	
419	11/12/2010 8:34	97	72	25	513-BKGDS1A	133	
420	11/12/2010 8:35	80	72	8	513-BKGDS1A	133	
421	11/12/2010 8:35	87	72	15	513-BKGDS1A	133	
422	11/12/2010 8:35	112	72	40	513-BKGDS1A	133	
423	11/12/2010 8:35	92	72	20	513-BKGDS1A	133	
424	11/12/2010 8:35	79	72	7	513-BKGDS1A	133	
425	11/12/2010 8:35	94	72	22	513-BKGDS1A	133	
426	11/12/2010 8:35	70	72	-2	513-BKGDS1A	133	
427	11/12/2010 8:35	89	72	17	513-BKGDS1A	133	
428	11/12/2010 8:35	120	72	48	513-BKGDS1A	133	
429	11/12/2010 8:36	99	72	27	513-BKGDS1A	133	
430	11/12/2010 8:36	94	72	22	513-BKGDS1A	133	
431	11/12/2010 8:36	93	72	21	513-BKGDS1A	133	
432	11/12/2010 8:36	68	72	-4	513-BKGDS1A	133	
433	11/12/2010 8:36	53	72	-19	513-BKGDS1A	133	
434	11/12/2010 8:36	43	72	-29	513-BKGDS1A	133	
435	11/12/2010 8:36	51	72	-21	513-BKGDS1A	133	
436	11/12/2010 8:36	59	72	-13	513-BKGDS1A	133	
437	11/12/2010 8:37	58	72	-14	513-BKGDS1A	133	
438	11/12/2010 8:37	73	72	1	513-BKGDS1A	133	
439	11/12/2010 8:37	83	72	11	513-BKGDS1A	133	
440	11/12/2010 8:37	87	72	15	513-BKGDS1A	133	
441	11/12/2010 8:37	92	72	20	513-BKGDS1A	133	
442	11/12/2010 8:37	66	72	-6	513-BKGDS1A	133	
443	11/12/2010 8:37	84	72	12	513-BKGDS1A	133	
444	11/12/2010 8:37	72	72	0	513-BKGDS1A	133	
445	11/12/2010 9:19	82	72	10	513-BKGDS1A	133	
446	11/12/2010 9:19	80	72	8	513-BKGDS1A	133	
447	11/12/2010 9:19	50	72	-22	513-BKGDS1A	133	
448	11/12/2010 9:19	46	72	-26	513-BKGDS1A	133	



Area: 886.82 m² Class: 1 Survey Unit: 9 Site Area: 707

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
449	11/12/2010 9:19	53	72	-19	513-BKGDS1A	133	
450	11/12/2010 9:19	53	72	-19	513-BKGDS1A	133	
451	11/12/2010 9:19	68	72	-4	513-BKGDS1A	133	
452	11/12/2010 9:20	47	72	-25	513-BKGDS1A	133	
453	11/12/2010 9:20	74	72	2	513-BKGDS1A	133	THE
454	11/12/2010 9:20	61	72	-11	513-BKGDS1A	133	
45 5	11/12/2010 9:20	62	72	-10	513-BKGDS1A	133	
456	11/12/2010 9:20	50	72	-22	513-BKGDS1A	133	
457	11/12/2010 9:20	80	72	8	513-BKGDS1A	133	
458	11/12/2010 9:20	59	72	-13	513-BKGDS1A	133	
459	11/12/2010 9:20	53	72	-19	513-BKGDS1A	133	
460	11/12/2010 9:20	52	72	-20	513-BKGDS1A	133	
461	11/12/2010 9:21	95	72	23	513-BKGDS1A	133	- 10 and 10
462	11/12/2010 9:21	109	72	37	513-BKGDS1A	133	
463	11/12/2010 9:21	71	72	-1	513-BKGDS1A	133	
464	11/12/2010 9:21	68	72	-4	513-BKGDS1A	133	
465	11/12/2010 9:21	75	72	3	513-BKGD51A	133	
466	11/12/2010 9:21	95	72	23	513-BKGDS1A	133	
467	11/12/2010 9:21	87	72	15	513-BKGDS1A	133	
468	11/12/2010 9:21	80	72	8	513-BKGDS1A	133	
469	11/12/2010 9:21	68	72	-4	513-BKGDS1A	133	275.00
470	11/12/2010 9:22	75	72	3	513-BKGDS1A	133	
471	11/12/2010 9:22	57	72	-15	513-BKGDS1A	133	
472	11/12/2010 9:22	62	72	-10	513-BKGDS1A	133	
473	11/12/2010 9:22	56	72	-16	513-BKGDS1A	133	
474	11/12/2010 9:22		72	-24	513-BKGDS1A	133	
475	11/12/2010 9:22		72	2	513-BKGDS1A	133	No. of the last of
476	11/12/2010 9:22		72	9	513-BKGDS1A	133	
477	11/12/2010 9:22		72	17	513-BKGDS1A	133	
478	11/12/2010 9:23		72	-6	513-BKGDS1A	133	
479	11/12/2010 9:24	-	72	10	513-8KGDS1A	133	
480	11/12/2010 9:24		72	12	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

кад #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
481	11/12/2010 9:24	87	72	15	513-BKGDS1A	133	
482	11/12/2010 9:25	70	72	-2	513-BKGD51A	133	
483	11/12/2010 9:25	68	72	-4	513-BKGDS1A	133	
484	11/12/2010 9:25	77	72	5	513-BKGDS1A	133	
485	11/12/2010 9:25	59	72	-13	513-BKGDS1A	133	
486	11/12/2010 9:25	53	72	-19	513-BKGDS1A	133	
487	11/12/2010 9:25	111	72	39	513-BKGDS1A	133	
488	11/12/2010 9:25	84	72	12	513-BKGDS1A	133	
489	11/12/2010 9:25	74	72	2	513-BKGDS1A	133	
490	11/12/2010 9:26	83	72	11	513-BKGDS1A	133	
491	11/12/2010 9:26	72	72	0	513-BKGDS1A	133	
492	11/12/2010 9:26	68	72	-4	513-BKGDS1A	133	
493	11/12/2010 9:26	63	72	-9	513-BKGDS1A	133	
494	11/12/2010 9:26	89	72	17	513-BKGDS1A	133	
495	11/12/2010 9:26	74	72	2	513-BKGDS1A	133	
496	11/12/2010 9:26	88	72	16	513-BKGDS1A	133	
497	11/12/2010 9:26	79	72	7	513-BKGDS1A	133	
498	11/12/2010 9:26	89	72	17	513-BKGDS1A	133	
499	11/12/2010 9:27	74	72	2	513-BKGDS1A	133	
500	11/12/2010 9:27	73	72	1	513-BKGDS1A	133	
501	11/12/2010 9:27	67	72	-5	513-BKGDS1A	133	
502	11/12/2010 9:27	77	72	5	513-BKGDS1A	133	
503	11/12/2010 9:27	72	72	0	513-BKGDS1A	133	
504	11/12/2010 9:27	59	72	-13	513-BKGDS1A	133	100
505	11/12/2010 9:27	43	72	-29	513-BKGDS1A	133	
506	11/12/2010 9:27	55	72	-17	513-BKGDS1A	133	
507	11/12/2010 9:27	59	72	-13	513-BKGDS1A	133	
508	11/12/2010 9:28	52	72	-20	513-BKGDS1A	133	
509	11/12/2010 9:28	66	72	-6	513-BKGDS1A	133	
510	11/12/2010 9:28	88	72	16	513-BKGDS1A	133	
511	11/12/2010 9:28	53	72	-19	513-BKGDS1A	133	100
512	11/12/2010 9:28	57	72	-15	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 **Survey Unit: 9** Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
513	11/12/2010 9:29	79	72	7	513-BKGDS1A	133	
514	11/12/2010 9:29	65	72	-7	513-BKGDS1A	133	
515	11/12/2010 9:29	54	72	-18	513-8KGDS1A	133	
516	11/12/2010 9:29	82	72	10	513-BKGDS1A	133	
517	11/12/2010 9:29	79	72	7	513-BKGDS1A	133	
518	11/12/2010 9:29	66	72	-6	513-BKGDS1A	133	Itanores to success to
519	11/12/2010 9:29	82	72	10	513-BKGDS1A	133	The same and the s
520	11/12/2010 9:29	56	72	-16	513-BKGDS1A	133	
521	11/12/2010 9:30	76	72	4	513-BKGDS1A	133	A SMITH
522	11/12/2010 9:30	64	72	-8	513-BKGDS1A	133	
523	11/12/2010 9:30	90	72	18	513-BKGDS1A	133	
524	11/12/2010 9:30	58	72	-14	513-BKGDS1A	133	
525	11/12/2010 9:30	79	72	7	513-BKGDS1A	133	The state of the s
526	11/12/2010 9:30	62	72	-10	513-BKGDS1A	133	
527	11/12/2010 9:30	64	72	-8	513-BKGDS1A	133	
528	11/12/2010 9:30	87	72	15	513-BKGDS1A	133	
529	11/12/2010 9:30	56	72	-16	513-BKGDS1A	133	
530	11/12/2010 9:31	93	72	21	513-BKGDS1A	133	
531	11/12/2010 9:31	75	72	3	513-BKGDS1A	133	
532	11/12/2010 9:31	74	72	2	513-BKGDS1A	133	
533	11/12/2010 9:31	104	72	32	513-BKGDS1A	133	1999 1999
534	11/12/2010 9:31	104	72	32	513-BKGDS1A	133	
535	11/12/2010 9:31	88	72	16	513-BKGDS1A	133	
536	11/12/2010 9:31	90	72	18	513-BKGDS1A	133	
537	11/12/2010 9:31	79	72	7	513-BKGDS1A	133	
538	11/12/2010 9:31	73	72	1	513-BKGDS1A	133	
539	11/12/2010 9:32	77	72	5	513-BKGDS1A	133	
540	11/12/2010 9:32	-	72	-12	513-BKGDS1A	133	
541	11/12/2010 9:32	94	72	22	513-BKGDS1A	133	
542	11/12/2010 9:32		72	11	513-BKGDS1A	133	
543	11/12/2010 9:32		72	7	513-BKGDS1A	133	
544	11/12/2010 9:32		72	18	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

	- 1			-			
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
545	11/12/2010 9:32	59	72	-13	513-BKGDS1A	133	
546	11/12/2010 9:33	90	72	18	513-BKGDS1A	133	
547	11/12/2010 9:33	101	72	29	513-BKGDS1A	133	
548	11/12/2010 9:33	126	72	54	513-BKGDS1A	133	
549	11/12/2010 9:33	116	72	44	513-BKGDS1A	133	
550	11/12/2010 9:33	107	72	35	513-BKGD51A	133	Winds and the second se
551	11/12/2010 9:34	86	72	14	513-BKGDS1A	133	10 10 10 10 10 10 10 10 10 10 10 10 10 1
552	11/12/2010 9:34	91	72	19	513-BKGDS1A	133	
553	11/12/2010 9:34	66	72	-6	513-BKGDS1A	133	
554	11/12/2010 9:34	87	72	15	513-BKGDS1A	133	
555	11/12/2010 9:34	83	72	11	513-BKGDS1A	133	
556	11/12/2010 9:34	96	72	24	513-BKGDS1A	133	
557	11/12/2010 9:34	85	72	13	513-BKGDS1A	133	
558	11/12/2010 9:34	72	72	0	513-BKGDS1A	133	
559	11/12/2010 9:34	72	72	0	513-BKGDS1A	133	
560	11/12/2010 9:35	76	72	4	513-BKGDS1A	133	Teas I
561	11/12/2010 9:35	54	72	-18	513-BKGDS1A	133	
562	11/12/2010 9:35	52	72	-20	513-BKGDS1A	133	
563	11/12/2010 9:35	52	72	-20	513-BKGDS1A	133	
564	11/12/2010 9:35	69	72	-3	513-BKGDS1A	133	10 Hz
565	11/12/2010 9:35	79	72	7	513-BKGDS1A	133	
566	11/12/2010 9:35	76	72	4	513-BKGDS1A	133	
567	11/12/2010 9:35	54	72	-18	513-BKGDS1A	133	
568	11/12/2010 9:35	70	72	-2	513-BKGDS1A	133	
569	11/12/2010 9:36	68	72	-4	513-BKGDS1A	133	1239
570	11/12/2010 9:36	46	72	-26	513-BKGDS1A	133	
571	11/12/2010 9:36	55	72	-17	513-BKGDS1A	133	
572	11/12/2010 9:36	61	72	-11	513-BKGDS1A	133	
573	11/12/2010 9:36	67	72	-5	513-BKGDS1A	133	
574	11/12/2010 9:36	62	72	-10	513-BKGDS1A	133	
575	11/12/2010 9:36	64	72	-8	513-BKGDS1A	133	
576	11/12/2010 9:36	60	72	-12	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
577	11/12/2010 9:37	72	72	0	513-BKGDS1A	133	
578	11/12/2010 9:37	65	72	-7	513-BKGDS1A	133	
579	11/12/2010 9:37	70	72	-2	513-BKGDS1A	133	
580	11/12/2010 9:37	63	72	.9	513-BKGDS1A	133	
581	11/12/2010 9:37	54	72	-18	513-BKGDS1A	133	
582	11/12/2010 9:38	64	72	-8	513-BKGDS1A	133	
583	11/12/2010 9:38	63	72	-9	513-BKGDS1A	133	
584	11/12/2010 9:38	73	72	1	513-BKGDS1A	133	
585	11/12/2010 9:38	53	72	-19	513-BKGDS1A	133	
586	11/12/2010 9:38	56	72	-16	513-BKGDS1A	133	
587	11/12/2010 9:38	61	72	-11	513-BKGDS1A	133	
588	11/12/2010 9:38	45	72	-27	513-BKGDS1A	133	
589	11/12/2010 9:38	47	72	-25	513-BKGDS1A	133	
590	11/12/2010 9:38	51	72	-21	513-BKGDS1A	133	
591	11/12/2010 9:39	78	72	6	513-BKGDS1A	133	201
592	11/12/2010 9:39	79	72	7	513-BKGDS1A	133	
593	11/12/2010 9:39	86	72	14	513-BKGDS1A	133	
594	11/12/2010 9:39	53	72	-19	513-BKGDS1A	133	
595	11/12/2010 9:39	50	72	-22	513-BKGDS1A	133	
596	11/12/2010 9:39	56	72	-16	513-BKGDS1A	133	
597	11/12/2010 9:39	59	72	-13	513-BKGDS1A	133	
598	11/12/2010 9:39	51	72	-21	513-BKGDS1A	133	
599	11/12/2010 9:40	73	72	1	513-BKGDS1A	133	
600	11/12/2010 9:40	103	72	31	513-BKGD\$1A	133	
601	11/12/2010 9:40	79	72	7	513-BKGDS1A	133	2.44
602	11/12/2010 9:40		72	-3	513-BKGDS1A	133	
603	11/12/2010 9:40	-	72	20	513-BKGDS1A	133	
604	11/12/2010 9:40		72	4	513-BKGDS1A	133	
605	11/12/2010 9:40		72	26	513-BKGDS1A	133	
606	11/12/2010 9:40		72	-18	513-BKGDS1A	133	
607	11/12/2010 9:40		72	-16	513-BKGDS1A	133	
608	11/12/2010 9:41		72	-6	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
609	11/12/2010 9:41	82	72	10	513-BKGDS1A	133	
610	11/12/2010 9:41	83	72	11	513-BKGDS1A	133	
611	11/12/2010 9:42	69	72	-3	513-BKGDS1A	133	
612	11/12/2010 9:42	65	72	-7	513-BKGDS1A	133	
613	11/12/2010 9:42	71	72	-1	513-BKGDS1A	133	
614	11/12/2010 9:42	75	72	3	513-BKGDS1A	133	
615	11/12/2010 9:42	61	72	-11	513-BKGDS1A	133	
616	11/12/2010 9:42	59	72	-13	513-BKGDS1A	133	
617	11/12/2010 9:42	72	72	0	513-BKGDS1A	133	
618	11/12/2010 9:42	92	72	20	513-BKGDS1A	133	
619	11/12/2010 9:42	72	72	0	513-BKGDS1A	133	
620	11/12/2010 9:43	66	72	-6	513-BKGDS1A	133	
621	11/12/2010 9:43	73	72	1	513-BKGDS1A	133	
622	11/12/2010 9:43	56	72	-16	513-BKGDS1A	133	
623	11/12/2010 9:43	48	72	-24	513-BKGDS1A	133	
624	11/12/2010 9:43	59	72	-13	513-BKGDS1A	133	
625	11/12/2010 9:43	51	72	-21	513-BKGDS1A	133	
626	11/12/2010 9:43	57	72	-15	513-BKGDS1A	133	
627	11/12/2010 9:43	102	72	30	513-BKGDS1A	133	
628	11/12/2010 9:44	86	72	14	513-BKGDS1A	133	
629	11/12/2010 9:44	84	72	12	513-BKGDS1A	133	
630	11/12/2010 9:44	62	72	-10	513-BKGDS1A	133	
631	11/12/2010 9:44	56	72	-16	513-BKGDS1A	133	
632	11/12/2010 9:44	56	72	-16	513-BKGDS1A	133	
633	11/12/2010 9:44	58	72	-14	513-BKGDS1A	133	
634	11/12/2010 9:44	55	72	-17	513-BKGDS1A	133	
635	11/12/2010 9:44	59	72	-13	513-BKGDS1A	133	
636	11/12/2010 9:44	69	72	-3	513-BKGDS1A	133	
637	11/12/2010 9:45	64	72	-8	513-BKGDS1A	133	
638	11/12/2010 9:45	54	72	-18	513-BKGDS1A	133	
639	11/12/2010 9:45	69	72	-3	513-BKGDS1A	133	
640	11/12/2010 9:46	56	72	-16	513-BKGDS1A	133	



Area: 886.82 m² Class: 1 Site Area: 707 Survey Unit: 9

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
641	11/12/2010 9:46	90	72	18	513-BKGDS1A	133	
642	11/12/2010 9:46	63	72	-9	513-BKGDS1A	133	
643	11/12/2010 9:46	69	72	-3	513-BKGDS1A	133	
644	11/12/2010 9:46	70	72	-2	513-BKGDS1A	133	
645	11/12/2010 9:46	58	72	-14	513-BKGDS1A	133	- Watering
646	11/12/2010 9:46	48	72	-24	513-BKGDS1A	133	TE 0 650 550 W 5500
647	11/12/2010 9:46	46	72	-26	513-BKGDS1A	133	
648	11/12/2010 9:47	59	72	-13	513-BKGDS1A	133	
649	11/12/2010 9:47	54	72	-18	513-BKGDS1A	133	
650	11/12/2010 9:47	89	72	17	513-BKGDS1A	133	
651	11/12/2010 9:47	74	72	2	513-BKGDS1A	133	
652	11/12/2010 9:47	50	72	-22	513-BKGDS1A	133	
653	11/12/2010 9:47	58	72	-14	513-BKGDS1A	133	
654	11/12/2010 9:47	83	72	11	513-BKGDS1A	133	
655	11/12/2010 9:47	75	72	3	513-BKGDS1A	133	
656	11/12/2010 9:47	69	72	-3	513-BKGDS1A	133	
657	11/12/2010 9:48	75	72	3	513-BKGDS1A	133	
658	11/12/2010 9:48	65	72	-7	513-BKGDS1A	133	
659	11/12/2010 9:48	105	72	33	513-BKGDS1A	133	
660	11/12/2010 9:48	100	72	28	513-BKGDS1A	133	
661	11/12/2010 9:48	84	72	12	513-BKGDS1A	133	
662	11/12/2010 9:48	107	72	35	513-BKGDS1A	133	200.5
663	11/12/2010 9:48	98	72	26	513-BKGDS1A	133	
664	11/12/2010 9:48	73	72	1	513-BKGDS1A	133	
665	11/12/2010 9:49	75	72	3	513-BKGDS1A	133	
666	11/12/2010 9.49		72	3	513-BKGDS1A	133	
667	11/12/2010 9:49		72	46	513-BKGDS1A	133	3 - 10 - 10 m
668	11/12/2010 9:49		72	23	513-BKGDS1A	133	
669	11/12/2010 9:49		72	-16	513-BKGDS1A	133	
670	11/12/2010 9:50		72	9	513-BKGDS1A	133	
671	11/12/2010 9:50		72	3	513-BKGDS1A	133	
672	11/12/2010 9:50		72	-10	513-BKGDS1A	133	e est



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Dda #	Date / Time	Gross	Gamma	Mah	Dankanawad	2-	S
rug #	Date / Time	Gamma	Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	СРМ	СРМ		Level (cpm)	
673	11/12/2010 9:50	58	72	-14	513-BKGDS1A	133	
674	11/12/2010 9:50	59	72	-13	513-BKGDS1A	133	
675	11/12/2010 9:50	89	72	17	513-BKGDS1A	133	
676	1 1/12/201 0 9:51	86	72	14	513-BKGDS1A	133	
677	11/12/2010 9:51	113	72	41	513-BKGDS1A	133	
678	11/12/2010 9:51	109	72	37	513-BKGDS1A	133	58,efs
679	11/12/2010 9:51	115	72	43	513-BKGDS1A	133	
680	11/12/2010 9:51	97	72	25	513-BKGDS1A	133	
681	11/12/2010 9:51	84	72	12	513-BKGDS1A	133	
682	11/12/2010 9:51	80	72	8	513-BKGDS1A	133	
683	11/12/2010 9:51	82	72	10	513-BKGDS1A	133	
684	11/12/2010 9:52	88	72	16	513-BKGDS1A	133	2
685	11/12/2010 9:52	60	72	-12	513-BKGDS1A	133	
686	11/12/2010 9:52	53	72	-19	513-BKGDS1A	133	
687	11/12/2010 9:52	46	72	-26	513-BKGDS1A	133	
688	11/12/2010 9:52	64	72	-8	513-BKGDS1A	133	2200
689	11/12/2010 9:52	68	72	-4	513-BKGDS1A	133	
690	11/12/2010 9:52	84	72	12	513-BKGDS1A	133	
691	11/12/2010 9:52	54	72	-18	513-BKGDS1A	133	
692	11/12/2010 9:52	64	72	-8	513-BKGDS1A	133	
693	11/12/2010 9:53	52	72	-20	513-BKGDS1A	133	
694	11/12/2010 9:53	59	72	-13	513-BKGDS1A	133	
695	11/12/2010 9:53	49	72	-23	513-BKGDS1A	133	
696	11/12/2010 9:53	48	72	-24	513-BKGDS1A	133	
697	11/12/2010 9:53	57	72	-15	513-BKGDS1A	133	
698	11/12/2010 9:53	70	72	-2	513-BKGDS1A	133	
699	11/12/2010 9:54	84	72	12	513-BKGDS1A	133	
700	11/12/2010 9:54	86	72	14	513-BKGDS1A	133	
701	11/12/2010 9:55	64	72	-8	513-BKGDS1A	133	
702	11/12/2010 9:55	73	72	1	513-BKGDS1A	133	
703	11/12/2010 9:55	115	72	43	513-BKGDS1A	133	
704	11/12/2010 9:55	89	72	17	513-BKGDS1A	133	



Class: 1 Area: 886.82 m² Site Area: 707 Survey Unit: 9

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
705	11/12/2010 9:55	86	72	14	513-BKGDS1A	133	
706	11/12/2010 9:55	79	72	7	513-BKGDS1A	133	
707	11/12/2010 9:55	92	72	20	513-BKGDS1A	133	
708	11/12/2010 9:55	104	72	32	513-BKGDS1A	133	
709	11/12/2010 9:56	106	72	34	513-BKGDS1A	133	
710	11/12/2010 9:56	100	72	28	513-BKGDS1A	133	W 100 500 500 5004
711	11/12/2010 9:56	91	72	19	513-BKGDS1A	133	and a second
712	11/12/2010 9:56	98	72	26	513-BKGDS1A	133	
713	11/12/2010 9:56	95	72	23	513-BKGDS1A	133	
714	11/12/2010 9:56	130	72	58	513-BKGDS1A	133	
715	11/12/2010 9:56	101	72	29	513-BKGDS1A	133	
716	11/12/2010 9:56	98	72	26	513-BKGDS1A	133	
717	11/12/2010 9:56	72	72	0	513-BKGDS1A	133	
718	11/12/2010 9:57	92	72	20	513-BKGDS1A	133	
719	11/12/2010 9:57	99	72	27	513-BKGDS1A	133	
720	11/12/2010 9:57	87	72	15	513-BKGDS1A	133	
721	11/12/2010 9:57	65	72	-7	513-BKGDS1A	133	
722	11/12/2010 9:57	114	72	42	513-BKGDS1A	133	
723	11/12/2010 9:57	99	72	27	513-BKGDS1A	133	
724	11/12/2010 9:57	76	72	4	513-BKGDS1A	133	
725	11/12/2010 9:57	72	72	0	513-BKGDS1A	133	
726	11/12/2010 9:57	76	72	4	513-BKGDS1A	133	
727	11/12/2010 9:59	102	72	30	513-BKGDS1A	133	
728	11/12/2010 9:59	110	72	38	513-BKGDS1A	133	
729	11/12/2010 10:00	79	72	7	513-BKGDS1A	133	
730	11/12/2010 10:00		72	20	513-BKGDS1A	133	
731	11/12/2010 10:00		72	40	513-BKGDS1A	133	
732	11/12/2010 10:00		72	12	513-BKGDS1A	133	
733	11/12/2010 10:00		72	26	513-BKGDS1A	133	
734	11/12/2010 10:00		72	4	513-BKGDS1A	133	
735	11/12/2010 10:00		72	-10	513-BKGDS1A	133	
736	11/12/2010 10:00		72	-6	513-BKGDS1A	133	1 7



Site Area: 707 Survey Unit: 9 Area: 886.82 m² Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
737	11/12/2010 10:00	61	72	-11	513-BKGDS1A	133	
738	11/12/2010 10:01	100	72	28	513-BKGDS1A	133	
739	11/12/2010 10:01	89	72	17	513-BKGDS1A	133	
740	11/12/2010 10:01	52	72	-20	513-BKGDS1A	133	
741	11/12/2010 10:01	64	72	-8	513-BKGDS1A	133	
742	11/12/2010 10:01	56	72	-16	513-BKGDS1A	133	
743	11/12/2010 10:01	85	72	13	513-BKGDS1A	133	
744	11/12/2010 10:01	71	72	-1	513-BKGDS1A	133	
745	11/12/2010 10:01	69	72	-3	513-BKGDS1A	133	
746	11/12/2010 10:02	88	72	16	513-BKGDS1A	133	
747	11/12/2010 10:02	72	72	0	513-BKGDS1A	133	
748	11/12/2010 10:02	47	72	-25	513-BKGDS1A	133	8-8 11
749	11/12/2010 10:02	75	72	3	513-BKGDS1A	133	
750	11/12/2010 10:02	57	72	-15	513-BKGDS1A	133	
751	11/12/2010 10:02	59	72	-13	513-BKGDS1A	133	
752	11/12/2010 10:02	100	72	28	513-BKGDS1A	133	
753	11/12/2010 10:02	91	72	19	513-BKGDS1A	133	
754	11/12/2010 10:02	79	72	7	513-BKGDS1A	133	
755	11/12/2010 10:03	64	72	-8	513-BKGDS1A	133	
756	11/12/2010 10:03	56	72	-16	513-BKGDS1A	133	
757	11/12/2010 10:04	96	72	24	513-BKGDS1A	133	
758	11/12/2010 10:04	95	72	23	513-BKGDS1A	133	The same of the sa
759	11/12/2010 10:04	73	72	1	513-BKGDS1A	133	
760	11/12/2010 10:04	58	72	-14	513-BKGDS1A	133	
761	11/12/2010 10:04	75	72	3	513-BKGDS1A	133	
762	11/12/2010 10:04	69	72	-3	513-BKGDS1A	133	
763	11/12/2010 10:04	66	72	-6	513-BKGDS1A	133	
764	11/12/2010 10:04	48	72	-24	513-BKGDS1A	133	
765	11/12/2010 10:04	83	72	11	513-BKGDS1A	133	
766	11/12/2010 10:05	131	72	59	513-BKGDS1A	133	
767	11/12/2010 10:05	114	72	42	513-BKGDS1A	133	
768	11/12/2010 10:05	99	72	27	513-BKGDS1A	133	



Area: 886.82 m² Class: 1 Site Area: 707 **Survey Unit: 9**

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
769	11/12/2010 10:05	89	72	17	513-BKGDS1A	133	
770	11/12/2010 10:05	73	72	1	513-BKGDS1A	133	
771	11/12/2010 10:05	67	72	-5	513-BKGDS1A	133	
772	11/12/2010 10:05	62	72	-10	513-BKGDS1A	133	
773	11/12/2010 10:05	73	72	1	513-BKGDS1A	133	
774	11/12/2010 10:05	59	72	-13	513-BKGDS1A	133	
775	11/12/2010 10:06	69	72	-3	513-BKGDS1A	133	
776	11/12/2010 10:06	60	72	-12	513-BKGDS1A	133	
777	11/12/2010 10:06	53	72	-19	513-BKGDS1A	133	
778	11/12/2010 10:06	79	72	7	513-BKGDS1A	133	
779	11/12/2010 10:06	71	72	-1	513-BKGDS1A	133	
780	11/12/2010 10:06	54	72	-18	513-BKGDS1A	133	
781	11/12/2010 10:06	54	72	-18	513-BKGDS1A	133	-110
782	11/12/2010 10:06	81	72	9	513-BKGDS1A	133	
783	11/12/2010 10:07	61	72	-11	513-BKGDS1A	133	
784	11/12/2010 10:07	74	72	2	513-BKGDS1A	133	
785	11/12/2010 10:08	54	72	-18	513-BKGDS1A	133	
786	11/12/2010 10:08	86	72	14	513-BKGDS1A	133	
787	11/12/2010 10:08	83	72	11	513-BKGDS1A	133	
788	11/12/2010 10:08	67	72	-5	513-BKGDS1A	133	
789	11/12/2010 10:08	82	72	10	513-BKGDS1A	133	
790	11/12/2010 10:08	70	72	-2	513-BKGDS1A	133	
791	11/12/2010 10:08	100	72	28	513-BKGDS1A	133	
792	11/12/2010 10:08	96	72	24	513-BKGDS1A	133	
793	11/12/2010 10:08	73	72	1	513-BKGDS1A	133	
794	11/12/2010 10:09	68	72	-4	513-BKGDS1A	133	
795	11/12/2010 10:09		72	9	513-BKGDS1A	133	
796	11/12/2010 10:09		72	13	513-BKGDS1A	133	
797	11/12/2010 10:09	67	72	-5	513-BKGDS1A	133	
798	11/12/2010 10:09		72	-12	513-BKGDS1A	133	
799	11/12/2010 10:09		72	-9	513-BKGDS1A	133	
800	11/12/2010 10:09		72	-18	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	СРМ	CPM	20 7a 13 0	Level (cpm)	
801	11/12/2010 10:09	66	72	-6	513-BKGDS1A	133	
802	11/12/2010 10:10	48	72	-24	513-BKGDS1A	133	
803	11/12/2010 10:10	49	72	-23	513-BKGDS1A	133	
804	11/12/2010 10:10	54	72	-18	513-BKGDS1A	133	
805	11/12/2010 10:10	69	72	-3	513-BKGDS1A	133	
806	11/12/2010 10:10	60	72	-12	513-BKGDS1A	133	
807	11/12/2010 10:10	68	72	-4	513-BKGDS1A	133	
808	11/12/2010 10:10	85	72	13	513-BKGDS1A	133	
809	11/12/2010 10:11	69	72	-3	513-BKGDS1A	133	
810	11/12/2010 10:11	77	72	5	513-BKGDS1A	133	
811	11/12/2010 10:11	75	72	3	513-BKGDS1A	133	
812	11/12/2010 10:11	92	72	20	513-BKGDS1A	133	
813	11/12/2010 10:11	107	72	35	513-BKGDS1A	133	ANSCENIE AND
814	11/12/2010 10:11	75	72	3	513-BKGDS1A	133	.a
815	11/12/2010 10:12	85	72	13	513-BKGDS1A	133	
816	11/12/2010 10:12	62	72	-10	513-BKGDS1A	133	
817	11/12/2010 10:12	73	72	1	513-BKGDS1A	133	
818	11/12/2010 10:12	72	72	0	513-BKGDS1A	133	
819	11/12/2010 10:12	79	72	7	513-BKGDS1A	133	
820	11/12/2010 10:12	97	72	25	513-BKGDS1A	133	
821	11/12/2010 10:12	129	72	57	513-BKGDS1A	133	
822	11/12/2010 10:12	99	72	27	513-BKGDS1A	133	the state of the s
823	11/12/2010 10:12	87	72	15	513-BKGDS1A	133	
824	11/12/2010 10:13	79	72	7	513-BKGDS1A	133	
825	11/12/2010 10:13	90	72	18	513-BKGDS1A	133	
826	11/12/2010 10:13	76	72	4	513-BKGDS1A	133	
827	11/12/2010 10:13	82	72	10	513-BKGDS1A	133	
828	11/12/2010 10:13	73	72	1	513-BKGDS1A	133	
829	11/12/2010 10:13	-	72	-19	513-BKGDS1A	133	Carrier State Linear
830	11/12/2010 10:13		72	-17	513-BKGDS1A	133	
831	11/12/2010 10:13		72	2	513-BKGDS1A	133	
832	11/12/2010 10:14		72	3	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

	Provide and Table 1		atest a point				
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
833	11/12/2010 10:14		72	·5	513-BKGDS1A	133	
834	11/12/2010 10:14		72	2	513-BKGDS1A	133	
835	11/12/2010 10:15		72	-13	513-BKGDS1A	133	
836	11/12/2010 10:15		72	13	513-BKGDS1A	133	
837	11/12/2010 10:15		72	-14	513-BKGDS1A	133	
838	11/12/2010 10:15		72	-2	513-BKGDS1A	133	
839	11/12/2010 10:15		72	-10	513-BKGDS1A	133	Browning and Company of the Company
840	11/12/2010 10:15		72	-9	513-BKGDS1A	133	1000 1000 1000
					-		
841 842	11/12/2010 10:15		72 72	-17 -29	513-BKGDS1A 513-BKGDS1A	133	
_	11/12/2010 10:15						
843	11/12/2010 10:15		72	-21	513-BKGDS1A	133	
844	11/12/2010 10:16		72	-11	513-BKGDS1A	133	
B45	11/12/2010 10:16		72	14	513-BKGDS1A	133	
B46	11/12/2010 10:16	87	72	15	513-BKGDS1A	133	
B47	11/12/2010 10:16	68	72	-4	513-BKGDS1A	133	
848	11/12/2010 10:16	65	72	-7	513-BKGDS1A	133	
849	11/12/2010 10:16	47	72	-25	513-BKGDS1A	133	
850	11/12/2010 10:16	62	72	-10	513-BKGDS1A	133	
851	11/12/2010 10:16	70	72	-2	513-BKGDS1A	133	
852	11/12/2010 10:17	69	72	-3	513-BKGDS1A	133	
853	11/12/2010 10:17	65	72	-7	513-BKGDS1A	133	03: 87722
854	11/12/2010 10:17	55	72	-17	513-BKGDS1A	133	
855	11/12/2010 10:17	71	72	-1	513-BKGDS1A	133	
856	11/12/2010 10:17	66	72	-6	513-BKGDS1A	133	
857	11/12/2010 10:17	50	72	-22	513-BKGDS1A	133	
858	11/12/2010 10:17		72	-18	513-BKGDS1A	133	
859	11/12/2010 10:50		72	-19	513-BKGDS1A	133	
860	11/12/2010 10:50		72	-6	513-BKGDS1A	133	
861	11/12/2010 10:50		72	10	513-BKGDS1A	133	
862	11/12/2010 10:50		72	1	513-BKGDS1A	133	
863	11/12/2010 10:50		72	16	513-BKGDS1A	133	
			-			+	
864	11/12/2010 10:50	67	72	-5	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
865	11/12/2010 10:50	69	72	-3	513-BKGDS1A	133	
866	11/12/2010 10:51	67	72	-5	513-BKGDS1A	133	
867	11/12/2010 10:51	95	72	23	513-BKGDS1A	133	
868	11/12/2010 10:51	61	72	-11	513-BKGDS1A	133	
869	11/12/2010 10:51	83	72	11	513-BKGDS1A	133	
870	11/12/2010 10:51	61	72	-11	513-BKGDS1A	133	
871	11/12/2010 10:51	48	72	-24	513-BKGD\$1A	133	
872	11/12/2010 10:51	57	72	-15	513-BKGDS1A	133	
873	11/12/2010 10:51	63	72	-9	513-BKGDS1A	133	
874	11/12/2010 10:51	67	72	-5	513-BKGDS1A	133	Th 15 (15 (15 (15 (15 (15 (15 (15 (15 (15
875	11/12/2010 10:52	75	72	3	513-BKGDS1A	133	100000000000000000000000000000000000000
876	11/12/2010 10:52	91	72	19	513-BKGDS1A	133	
877	11/12/2010 10:52	100	72	28	513-BKGDS1A	133	
878	11/12/2010 10:52	90	72	18	513-BKGDS1A	133	
879	11/12/2010 10:52	77	72	5	513-BKGDS1A	133	
880	11/12/2010 10:52	79	72	7	513-BKGDS1A	133	
881	11/12/2010 10:52	66	72	-6	513-BKGDS1A	133	
882	11/12/2010 10:52	62	72	-10	513-BKGDS1A	133	
883	11/12/2010 10:53	65	72	-7	513-BKGDS1A	133	
884	11/12/2010 10:54	96	72	24	513-BKGDS1A	133	
885	11/12/2010 10:54	87	72	15	513-BKGDS1A	133	
886	11/12/2010 10:54	62	72	-10	513-BKGDS1A	133	
887	11/12/2010 10:54	64	72	-8	513-BKGDS1A	133	
888	11/12/2010 10:54	89	72	17	513-BKGDS1A	133	
889	11/12/2010 10:54	99	72	27	513-BKGDS1A	133	
890	11/12/2010 10:54	69	72	-3	513-BKGDS1A	133	estaure in the states
891	11/12/2010 10:55	64	72	-8	513-BKGDS1A	133	
892	11/12/2010 10:55	56	72	-16	513-BKGDS1A	133	
893	11/12/2010 10:55	53	72	-19	513-BKGDS1A	133	
894	11/12/2010 10:55	67	72	-5	513-BKGDS1A	133	
895	11/12/2010 10:55	82	72	10	513-BKGDS1A	133	
896	11/12/2010 10:55	68	72	-4	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

	10 - 12 - 11 - 11					1.00		
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
897	11/12/2010 10:55	91	72	19	513-BKGDS1A	133		
898	11/12/2010 10:55	77	72	5	513-BKGDS1A	133		
899	11/12/2010 10:55	63	72	-9	513-BKGDS1A	133		
900	11/12/2010 10:56	52	72	-20	513-BKGDS1A	133	U, E,	
901	11/12/2010 10:56	60	72	-12	513-BKGDS1A	133		
902	11/12/2010 10:56	53	72	-19	513-BKGDS1A	133		
903	11/12/2010 10:56	55	72	-17	513-BKGDS1A	133		
904	11/12/2010 10:56	48	72	-24	513-BKGDS1A	133		
905	11/12/2010 10:56	61	72	-11	513-BKGDS1A	133	A CONTRACTOR OF STREET	
906	11/12/2010 10:56	64	72	-8	513-BKGDS1A	133		
907	11/12/2010 10:57	52	72	-20	513-BKGDS1A	133		
908	11/12/2010 10:58	64	72	-8	513-BKGDS1A	133		-
909	11/12/2010 10:58	75	72	3	513-BKGDS1A	133		
910	11/12/2010 10:58	54	72	-18	513-BKGDS1A	133		
911	11/12/2010 10:58	61	72	-11	513-BKGDS1A	133		
912	11/12/2010 10:58	56	72	-16	513-BKGDS1A	133		
913	11/12/2010 10:58	55	72	-17	513-BKGDS1A	133		
914	11/12/2010 10:58	46	72	-26	513-BKGDS1A	133		
915	11/12/2010 10:58	54	72	-18	513-BKGDS1A	133		
916	11/12/2010 10:58	104	72	32	513-BKGDS1A	133		
917	11/12/2010 10:59	81	72	9	513-BKGDS1A	133	000 E 800	
918	11/12/2010 10:59	85	72	13	513-BKGDS1A	133	15.35980	
919	11/12/2010 10:59	65	72	-7	513-BKGDS1A	133		
920	11/12/2010 10:59	65	72	-7	513-BKGDS1A	133		
921	11/12/2010 10:59	65	72	-7	513-BKGDS1A	133		
922	11/12/2010 10:59	75	72	3	513-BKGDS1A	133		
923	11/12/2010 10:59	67	72	-5	513-BKGDS1A	133		
924	11/12/2010 10:59	82	72	10	513-BKGDS1A	133	Language Company	
925	11/12/2010 10:59	81	72	9	513-BKGDS1A	133		
926	11/12/2010 11:00	60	72	-12	513-BKGDS1A	133		
927	11/12/2010 11:00	61	72	-11	513-BKGDS1A	133		(
928	11/12/2010 11:00	68	72	-4	513-BKGDS1A	133		1
								-



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

929 11/12/2010 11:01 84 72 12 513-BKGDS1A 133 931 11/12/2010 11:01 79 72 7 513-BKGDS1A 133 931 11/12/2010 11:01 98 72 26 513-BKGDS1A 133 932 11/12/2010 11:01 87 72 15 513-BKGDS1A 133 932 11/12/2010 11:01 76 72 4 513-BKGDS1A 133 934 11/12/2010 11:01 57 72 -1.5 513-BKGDS1A 133 934 11/12/2010 11:01 54 72 -1.8 513-BKGDS1A 133 935 11/12/2010 11:01 64 72 -8 513-BKGDS1A 133 935 11/12/2010 11:01 64 72 -8 513-BKGDS1A 133 937 11/12/2010 11:02 64 72 -8 513-BKGDS1A 133 937 11/12/2010 11:02 56 72 -1.6 513-BKGDS1A 133 939 11/12/2010 11:02 56 72 -1.6 513-BKGDS1A 133 939 11/12/2010 11:02 79 72 7 513-BKGDS1A 133 939 11/12/2010 11:02 79 72 7 513-BKGDS1A 133 939 11/12/2010 11:02 79 72 7 513-BKGDS1A 133 941 11/12/2010 11:02 64 72 -8 513-BKGDS1A 133 941 11/12/2010 11:02 64 72 -8 513-BKGDS1A 133 943 11/12/2010 11:02 64 72 -8 513-BKGDS1A 133 944 11/12/2010 11:02 68 72 -4 513-BKGDS1A 133 944 11/12/2010 11:02 68 72 -4 513-BKGDS1A 133 944 11/12/2010 11:02 68 72 -4 513-BKGDS1A 133 945 11/12/2010 11:02 68 72 -4 513-BKGDS1A 133 945 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 946 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 947 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 948 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 949 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 949 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 949 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 950 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:04 60 72 -7 5 513-BKGDS1A 133 955 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 955 11/12/2010 11:05 63 72 -1 6 513-BKGDS1A 133 955 11/12/2010 11:05 63 72 -1 6 513-BKGDS1A 133 955 11/12/2010 11:05 63 72 -1 6 513-BKGDS1A 133 955 11/12/2	Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
931 11/12/2010 11:01 98 72 26 513-BKGD51A 133 9 932 11/12/2010 11:01 87 72 15 513-BKGD51A 133 9 933 11/12/2010 11:01 76 72 4 513-BKGD51A 133 9 934 11/12/2010 11:01 57 72 -15 513-BKGD51A 133 9 935 11/12/2010 11:01 54 72 -18 513-BKGD51A 133 9 936 11/12/2010 11:01 64 72 -8 513-BKGD51A 133 9 937 11/12/2010 11:02 48 72 -24 513-BKGD51A 133 9 938 11/12/2010 11:02 56 72 -16 513-BKGD51A 133 9 939 11/12/2010 11:02 79 72 7 513-BKGD51A 133 9 940 11/12/2010 11:02 79 72 7 513-BKGD51A 133 9 941 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 9 942 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 9 943 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 9 944 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 9 945 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 9 946 11/12/2010 11:02 77 72 5 513-BKGD51A 133 9 947 11/12/2010 11:02 73 72 1 513-BKGD51A 133 9 948 11/12/2010 11:02 68 72 -4 513-BKGD51A 133 9 949 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 940 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 941 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 948 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 949 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 949 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 949 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 9 949 11/12/2010 11:03 68 72 -5 513-BKGD51A 133 9 949 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 949 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 950 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 951 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 951 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 951 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 952 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 9 953 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 955 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 955 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 956 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 957 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 958 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 959 11/12/2010 11:05 63 72 -9 513-BKGD51A 133 9 959 11/12/2010 11:05 64 72 -8 513-BKGD51A 133 9	929	11/12/2010 11:01				513-BKGD\$1A		
932 11/12/2010 11:01 87 72 15 513-BKGD51A 133 93 11/12/2010 11:01 76 72 4 513-BKGD51A 133 93 11/12/2010 11:01 57 72 -15 513-BKGD51A 133 93 11/12/2010 11:01 54 72 -18 513-BKGD51A 133 93 11/12/2010 11:01 64 72 -8 513-BKGD51A 133 93 11/12/2010 11:02 48 72 -24 513-BKGD51A 133 93 11/12/2010 11:02 48 72 -24 513-BKGD51A 133 93 11/12/2010 11:02 56 72 -16 513-BKGD51A 133 93 11/12/2010 11:02 79 72 7 513-BKGD51A 133 999 11/12/2010 11:02 79 72 7 513-BKGD51A 133 940 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 941 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 941 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 942 11/12/2010 11:02 64 72 -8 513-BKGD51A 133 943 11/12/2010 11:02 68 72 -4 513-BKGD51A 133 944 11/12/2010 11:02 68 72 -4 513-BKGD51A 133 945 11/12/2010 11:02 68 72 -4 513-BKGD51A 133 945 11/12/2010 11:02 68 72 -4 513-BKGD51A 133 946 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 947 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 947 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 948 11/12/2010 11:03 68 72 -4 513-BKGD51A 133 950 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 950 11/12/2010 11:04 67 72 -5 513-BKGD51A 133 950 11/12/2010 11:04 80 72 8 513-BKGD51A 133 950 11/12/2010 11:05 69 72 -3	930	11/12/2010 11:01	79	72	7	513-BKGDS1A	133	
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944 11/12/2010 11:02 68 72 -4 513-BKGDS1A 133 945 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 946 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 947 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 948 11/12/2010 11:03 80 72 8 513-BKGDS1A 133 949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 955 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 64 72 -18 513-BKGDS1A 133 958 11/12/2010 11:05 78 72 6 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	942	11/12/2010 11:02	77	72	5	513-BKGDS1A	133	
945 11/12/2010 11:02 73 72 1 513-BKGDS1A 133 946 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 947 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 948 11/12/2010 11:03 80 72 8 513-BKGDS1A 133 949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 67 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 955 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	943	11/12/2010 11:02	81	72	9	513-BKGDS1A	133	
946 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 947 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 948 11/12/2010 11:03 80 72 8 513-BKGDS1A 133 949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	944	11/12/2010 11:02	68	72	-4	513-BKGDS1A	133	
947 11/12/2010 11:03 68 72 -4 513-BKGDS1A 133 948 11/12/2010 11:03 80 72 8 513-BKGDS1A 133 949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	945	11/12/2010 11:02	73	72	1	513-BKGDS1A	133	
948 11/12/2010 11:03 80 72 8 513-BKGDS1A 133 949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	946	11/12/2010 11:03	68	72	-4	513-BKGDS1A	133	
949 11/12/2010 11:03 48 72 -24 513-BKGDS1A 133 950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	947	11/12/2010 11:03	68	72	-4	513-BKGDS1A	133	
950 11/12/2010 11:03 56 72 -16 513-BKGDS1A 133 951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	948	11/12/2010 11:03	80	72	8	513-BKGDS1A	133	
951 11/12/2010 11:04 67 72 -5 513-BKGDS1A 133 952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	949	11/12/2010 11:03	48	72	-24	513-BKGDS1A	133	
952 11/12/2010 11:04 92 72 20 513-BKGDS1A 133 953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	950	11/12/2010 11:03	56	72	-16	513-BKGDS1A	133	
953 11/12/2010 11:04 80 72 8 513-BKGDS1A 133 954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	951	11/12/2010 11:04	67	72	-5	513-BKGDS1A	133	
954 11/12/2010 11:04 90 72 18 513-BKGDS1A 133 955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	952	11/12/2010 11:04	92	72	20	513-BKGDS1A	133	
955 11/12/2010 11:05 83 72 11 513-BKGDS1A 133 956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	953	11/12/2010 11:04	80	72	8	513-BKGDS1A	133	
956 11/12/2010 11:05 69 72 -3 513-BKGDS1A 133 957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	954	11/12/2010 11:04	90	72	18	513-BKGDS1A	133	
957 11/12/2010 11:05 63 72 -9 513-BKGDS1A 133 958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	955	11/12/2010 11:05	83	72	11	513-BKGDS1A	133	
958 11/12/2010 11:05 54 72 -18 513-BKGDS1A 133 959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	956	11/12/2010 11:05	69	72	-3	513-BKGDS1A	133	
959 11/12/2010 11:05 78 72 6 513-BKGDS1A 133	957	11/12/2010 11:05	63	72	-9	513-BKGDS1A	133	11271.20.20
	958	11/12/2010 11:05	54	72	-18	513-BKGDS1A	133	
	959	11/12/2010 11:05	78	72	6	513-BKGDS1A	133	
960 11/12/2010 11:05 94 72 22 513-BKGDS1A 133	960	11/12/2010 11:05	94	72	22	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
961	11/12/2010 11:05	79	72	7	513-BKGDS1A	133	
962	11/12/2010 11:05	76	72	4	513-BKGDS1A	133	
963	11/12/2010 11:05	115	72	43	513-BKGDS1A	133	
964	11/12/2010 11:06	103	72	31	513-BKGDS1A	133	9 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
965	11/12/2 <mark>01</mark> 0 11:06	129	72	57	513-BKGDS1A	133	
966	11/12/2010 11:06	105	72	33	513-BKGDS1A	133	
967	11/12/2010 11:06	91	72	19	513-BKGDS1A	133	
968	11/12/2010 11:06	101	72	29	513-BKGDS1A	133	
969	11/12/2010 11:06	121	72	49	513-BKGDS1A	133	
970	11/12/2010 11:06	102	72	30	513-BKGDS1A	133	
971	11/12/2010 11:06	78	72	6	513-BKGDS1A	133	
972	11/12/2010 11:07	48	72	-24	513-BKGDS1A	133	-10-01-04-10
973	11/12/2010 11:07	46	72	-26	513-BKGDS1A	133	
974	11/12/2010 11:07	49	72	-23	513-BKGDS1A	133	
975	11/12/2010 11:07	75	72	3	513-BKGDS1A	133	
976	11/12/2010 11:08	66	72	-6	513-BKGDS1A	133	
977	11/12/2010 11:08	64	72	-8	513-BKGDS1A	133	
978	11/12/2010 11:08	64	72	-8	513-BKGDS1A	133	
979	11/12/2010 11:08	69	72	-3	513-BKGDS1A	133	
980	11/12/2010 11:08	71	72	-1	513-BKGDS1A	133	70 430
981	11/12/2010 11:08	82	72	10	513-BKGDS1A	133	1000
982	11/12/2010 11:08	82	72	10	513-BKGDS1A	133	
983	11/12/2010 11:08	103	72	31	513-BKGDS1A	133	
984	11/12/2010 11:08		72	5	513-BKGDS1A	133	and severe man
985	11/12/2010 11:09	80	72	8	513-BKGDS1A	133	
986	11/12/2010 11:09	94	72	22	513-BKGDS1A	133	
987	11/12/2010 11:09	89	72	17	513-BKGDS1A	133	NAME OF TAXABLE PARTY.
988	11/12/2010 11:09	94	72	22	513-BKGDS1A	133	
989	11/12/2010 11:09	76	72	4	513-BKGDS1A	133	
990	11/12/2010 11:09	76	72	4	513-BKGDS1A	133	
991	11/12/2010 11:09	51	72	-21	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg # Date / Ti	ime	Gross	Gamma	Net	Dackground	20	Comments
		Gamma CPM	Background CPM	Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
993 11/12/20	10 11:10	52	72	-20	513-BKGD\$1A	133	
994 11/12/20	10 11:10	58	72	-14	513-BKGDS1A	133	
995 11/12/20	10 11:10	89	72	17	513-BKGDS1A	133	
996 11/12/20	10 11:10	72	72	0	513-BKGDS1A	133	
997 11/12/20	10 11:10	69	72	-3	513-BKGD\$1A	133	
998 11/12/20	10 11:11	70	72	-2	513-BKGDS1A	133	
999 11/12/20	10 11:11	76	72	4	513-BKGD\$1A	133	
1000 11/12/20	10 11:11	89	72	17	513-BKGDS1A	133	7,000,000,000
1001 11/12/20	10 11:11	82	72	10	513-BKGDS1A	133	274
1002 11/12/20	10 11:11	76	72	4	513-BKGDS1A	133	ON THE RESERVE OF THE PERSON O
1003 11/12/20	10 11:11	72	72	0	513-BKGDS1A	133	
1004 11/12/20	10 11:11	51	72	-21	513-BKGDS1A	133	
1005 11/12/20	10 11:11	57	72	-15	513-BKGDS1A	133	
1006 11/12/20	10 11:11	58	72	-14	513-BKGDS1A	133	
1007 11/12/20	10 11:12	83	72	11	513-BKGDS1A	133	
1008 11/12/20	10 11:12	75	72	3	513-BKGDS1A	133	
1009 11/12/20	10 11:12	84	72	12	513-BKGDS1A	133	
1010 11/12/20	10 11:12	99	72	27	513-BKGDS1A	133	
1011 11/12/20	10 11:12	75	72	3	513-BKGDS1A	133	
1012 11/12/20	10 11:13	86	72	14	513-BKGDS1A	133	
1013 11/12/20	10 11:13	73	72	1	513-BKGDS1A	133	
1014 11/12/20	10 11:13	80	72	8	513-BKGDS1A	133	
1015 11/12/20	10 11:13	75	72	3	513-BKGDS1A	133	
1016 11/12/20	10 11:13	68	72	-4	513-BKGDS1A	133	
1017 11/12/20	10 11:14	62	72	-10	513-BKGDS1A	133	
1018 11/12/20	10 11:14	75	72	3	513-BKGDS1A	133	1000 States States 1 (200 A)
1019 11/12/20	10 11:14	60	72	-12	513-BKGDS1A	133	
1020 11/12/20	10 11:14	67	72	-5	513-BKGDS1A	133	
1021 11/12/20	10 11:14	57	72	-15	513-BKGDS1A	133	- 20 to - 20 t
1022 11/12/20	10 11:14	94	72	22	513-BKGDS1A	133	
1023 11/12/20	10 11:14	76	72	4	513-BKGDS1A	133	
1024 11/12/20	10 11:14	72	72	0	513-BKGDS1A	133	



Site Area: 707 **Survey Unit: 9** Class: 1 Area: 886.82 m²

Rdg #	- 1=						
	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1025	11/12/2010 11:14	56	72	-16	513-BKGDS1A	133	
1026	11/12/2010 11:15	49	72	-23	513-BKGDS1A	133	
1027	11/12/2010 11:15	51	72	-21	513-BKGDS1A	133	N R R MAN
1028	11/12/2010 11:15	71	72	-1	513-BKGDS1A	133	24 2082 23 484 0000 23 86 24 170 2
1029	11/12/2010 11:15	74	72	2	513-BKGDS1A	133	
1030	11/12/2010 11:15	97	72	25	513-BKGDS1A	133	4.70 Miles #4.70
1031	11/12/2010 11:16	71	72	-1	513-BKGDS1A	133	
1032	11/12/2010 11:16	80	72	8	513-BKGDS1A	133	
1033	11/12/2010 11:16	75	72	3	513-BKGDS1A	133	
1034	11/12/2010 11:16	58	72	-14	513-BKGDS1A	133	
1035	11/12/2010 11:16	54	72	-18	513-BKGDS1A	133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1036	11/12/2010 11:16	53	72	-19	513-BKGDS1A	133	No read
1037	11/12/2010 11:16	60	72	-12	513-BKGDS1A	133	
1038	11/12/2010 11:16	72	72	0	513-BKGDS1A	133	
1039	11/12/2010 11:17	93	72	21	513-BKGDS1A	133	
1040	11/12/2010 11:17	60	72	-12	513-BKGDS1A	133	
1041	11/12/2010 11:17	83	72	11	513-BKGDS1A	133	
1042	11/12/2010 11:17	82	72	10	513-BKGDS1A	133	
1043	11/12/2010 11:17	83	72	11	513-BKGDS1A	133	Res
1044	11/12/2010 11:17	115	72	43	513-BKGDS1A	133	
	11/12/2010 11:17	90	72	18	513-BKGDS1A	133	
	11/12/2010 11:17	99	72	27	513-BKGDS1A	133	
1047	11/12/2010 11:17	74	72	2	513-BKGDS1A	133	
	11/12/2010 11:18	89	72	17	513-BKGDS1A	133	
1049	11/12/2010 11:18	66	72	-6	513-BKGDS1A	133	
	11/12/2010 11:18		72	-7	513-BKGDS1A	133	
	11/12/2010 11:19	93	72	21	513-BKGDS1A	133	300,880,000
	11/12/2010 11:19		72	-22	513-BKGDS1A	133	
	11/12/2010 11:19		72	-13	513-BKGDS1A	133	
	11/12/2010 11:19		72	-14	513-BKGDS1A	133	
	11/12/2010 11:19		72	0	513-BKGDS1A	133	
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TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

nug #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1057	11/12/2010 11:19	102	72	30	513-BKGDS1A	133	
1058	11/12/2010 11:19	94	72	22	513-BKGDS1A	133	
1059	11/12/2010 11:20	86	72	14	513-BKGDS1A	133	
1060	11/12/2010 11:20	82	72	10	513-BKGDS1A	133	
1061	11/12/2010 11:20	65	72	-7	513-BKGDS1A	133	
1062	11/12/2010 11:20	54	72	-18	513-BKGDS1A	133	JU
1063	11/12/2010 11:20	53	72	-19	513-BKGDS1A	133	
1064	11/12/2010 11:20	53	72	-19	513-BKGDS1A	133	
1065	11/12/2010 11:20	51	72	-21	513-BKGDS1A	133	
1066	11/12/2010 11:20	53	72	-19	513-BKGDS1A	133	
1067	11/12/2010 11:21	60	72	-12	513-BKGDS1A	133	
1068	11/12/2010 11:23	53	72	-19	513-BKGDS1A	133	
1069	11/12/2010 11:23	61	72	-11	513-BKGDS1A	133	
1070	11/12/2010 11:23	84	72	12	513-BKGDS1A	133	
1071	11/12/2010 11:23	93	72	21	513-BKGDS1A	133	
1072	11/12/2010 11:23	85	72	13	513-BKGDS1A	133	
1073	11/12/2010 11:23	82	72	10	513-BKGDS1A	133	
1074	11/12/2010 11:23	60	72	-12	513-BKGDS1A	133	
1075	11/12/2010 11:24	53	72	-19	513-BKGDS1A	133	
1076	11/12/2010 11:24	64	72	-8	513-BKGDS1A	133	
1077	11/12/2010 11:24	62	72	-10	513-BKGDS1A	133	
1078	11/12/2010 11:24	51	72	-21	513-BKGDS1A	133	
1079	11/12/2010 11:24	78	72	6	513-BKGDS1A	133	
1080	11/12/2010 11:24	61	72	-11	513-BKGDS1A	133	access a la sa la gasa a
1081	11/12/2010 11:24	65	72	-7	513-BKGDS1A	133	THE RESERVE OF THE SECOND OF T
1082	11/12/2010 11:24	60	72	-12	513-BKGD\$1A	133	
1083	11/12/2010 11:25	86	72	14	513-BKGD\$1A	133	
1084	11/12/2010 11:26	61	72	-11	513-BKGDS1A	133	
1085	11/12/2010 11:26	57	72	-15	513-BKGDS1A	133	
1086	11/12/2010 11:26	55	72	-17	513-BKGDS1A	133	
1087	11/12/2010 11:26	64	72	-8	513-BKGDS1A	133	
1088	11/12/2010 11:26	73	72	1	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
1089	11/12/2010 11:26	57	72	-15	513-BKGDS1A	133	
1090	11/12/2010 11:26	51	72	-21	513-BKGDS1A	133	
1091	11/12/2010 11:26	68	72	-4	513-BKGDS1A	133	
1092	11/12/2010 11:26	91	72	19	513-BKGDS1A	133	4077301 103 74
1093	11/12/2010 11:27	74	72	2	513-BKGDS1A	133	
1094	11/12/2010 11:27	65	72	-7	513-BKGDS1A	133	
1095	11/12/2010 11:27	91	72	19	513-BKGDS1A	133	
1096	11/12/2010 11:27	84	72	12	513-BKGDS1A	133	
1097	11/12/2010 11:27	109	72	37	513-BKGDS1A	133	
1098	11/12/2010 11:27	94	72	22	513-BKGDS1A	133	100 Feb. 100
1099	11/12/2010 11:29	71	72	-1	513-BKGDS1A	133	
1100	11/12/2010 11:29	48	72	-24	513-BKGDS1A	133	
1101	11/12/2010 11:29	47	72	-25	513-BKGDS1A	133	
1102	11/12/2010 11:29	47	72	-25	513-BKGDS1A	133	
1103	11/12/2010 11:29	46	72	-26	513-BKGDS1A	133	
1104	11/12/2010 11:29	60	72	-12	513-BKGDS1A	133	
1105	11/12/2010 11:29	77	72	5	513-BKGDS1A	133	
1106	11/12/2010 11:29	45	72	-27	513-BKGDS1A	133	
1107	11/12/2010 11:29	49	72	-23	513-BKGDS1A	133	
1108	11/12/2010 11:30	71	72	-1	513-BKGDS1A	133	11 - 12 - 19 - 1
1109	11/12/2010 11:30	67	72	-5	513-BKGDS1A	133	
1110	11/12/2010 11:30	57	72	-15	513-BKGDS1A	133	
1111	11/12/2010 11:30	51	72	-21	513-BKGDS1A	133	
1112	11/12/2010 11:30	50	72	-22	513-BKGDS1A	133	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
1113	11/12/2010 11:31	75	72	3	513-BKGDS1A	133	
1114	11/12/2010 11:31	68	72	-4	513-BKGDS1A	133	
1115	11/12/2010 11:31	81	72	9	513-BKGDS1A	133	
1116	11/12/2010 11:31		72	17	513-BKGDS1A	133	
1117	11/12/2010 11:31	95	72	23	513-BKGDS1A	133	
1118	11/12/2010 11:31		72	6	513-BKGDS1A	133	
1119	11/12/2010 11:31		72	-15	513-BKGDS1A	133	
1120	11/12/2010 11:32		72	0	513-BKGDS1A	133	



Survey Unit: 9 Class: 1 Area: 886.82 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1121	11/12/2010 11:32	68	72	-4	513-BKGDS1A	133	
1122	11/12/2010 11:32	72	72	0	513-BKGDS1A	133	
1123	11/12/2010 11:32	79	72	7	513-BKGDS1A	133	
1124	11/12/2010 11:32	72	72	0	513-BKGDS1A	133	
1125	11/12/2010 11:32	68	72	-4	513-BKGDS1A	133	
1126	11/12/2010 11:32	59	72	-13	513-BKGD\$1A	133	
1127	11/12/2010 11:33	52	72	-20	513-BKGDS1A	133	
1128	11/12/2010 11:33	49	72	-23	513-BKGDS1A	133	N. NEW
1129	11/12/2010 11:33	58	72	-14	513-BKGDS1A	133	
1130	11/12/2010 11:33	57	72	-15	513-BKGDS1A	133	3000 - 01 00
1131	11/12/2010 11:33	80	72	8	513-BKGDS1A	133	
1132	11/12/2010 11:34	79	72	7	513-BKGDS1A	133	
1133	11/12/2010 11:34	55	72	-17	513-BKGDS1A	133	
1134	11/12/2010 11:34	56	72	-16	513-BKGDS1A	133	
1135	11/12/2010 11:34	64	72	-8	513-BKGDS1A	133	
1136	11/12/2010 11:34	66	72	-6	513-BKGDS1A	133	
1137	11/12/2010 11:34	82	72	10	513-BKGDS1A	133	11 11 - 10 - 10 - 10 - 10 - 10 - 10 - 1
1138	11/12/2010 11:34	72	72	0	513-BKGDS1A	133	012246344320000000
1139	11/12/2010 11:34	96	72	24	513-BKGDS1A	133	
1140	11/12/2010 11:35	82	72	10	513-BKGDS1A	133	
1141	11/12/2010 11:35	88	72	16	513-BKGDS1A	133	
1142	11/12/2010 11:35	82	72	10	513-BKGDS1A	133	
1143	11/12/2010 11:35	58	72	-14	513-BKGDS1A	133	
1144	11/12/2010 11:36	55	72	-17	513-BKGDS1A	133	
1145	11/12/2010 11:36	53	72	-19	513-BKGD\$1A	133	
1146	11/12/2010 11:36	63	72	-9	513-BKGD\$1A	133	
1147	11/12/2010 11:36	75	72	3	513-BKGDS1A	133	
1148	11/12/2010 11:36	69	72	-3	513-BKGDS1A	133	
1149	11/12/2010 11:36	68	72	-4	513-BKGDS1A	133	
1150	11/12/2010 11:36	82	72	10	513-BKGDS1A	133	
1151	11/12/2010 11:36	75	72	3	513-BKGDS1A	133	
1152	11/12/2010 11:39	96	72	24	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1153	11/12/2010 11:39	69	72	-3	513-BKGDS1A	133	
1154	11/12/2010 11:39	69	72	-3	513-BKGDS1A	133	
1155	11/12/2010 11:39	71	72	-1	513-BKGDS1A	133	
1156	11/12/2010 11:39	66	72	-6	513-BKGDS1A	133	NATE OF THE PROPERTY OF THE PR
1157	11/12/2010 11:39	54	72	-18	513-BKGDS1A	133	
1158	11/12/2010 11:39	47	72	-25	513-BKGDS1A	133	
1159	11/12/2010 11:39	49	72	-23	513-BKGDS1A	133	
1160	11/12/2010 11:39	53	72	-19	513-BKGDS1A	133	
1161	11/12/2010 11:40	46	72	-26	513-BKGDS1A	133	
1162	11/12/2010 11:40	54	72	-18	513-BKGDS1A	133	
1163	11/12/2010 11:40	83	72	11	513-BKGDS1A	133	
1164	11/12/2010 11:41	76	72	4	513-BKGDS1A	133	
1165	11/12/2010 11:41	50	72	-22	513-BKGDS1A	133	
1166	11/12/2010 11:41	55	72	-17	513-BKGDS1A	133	
1167	11/12/2010 11:41	75	72	3	513-BKGDS1A	133	
1168	11/12/2010 11:41	63	72	-9	513-BKGDS1A	133	
1169	11/12/2010 11:41	75	72	3	513-BKGDS1A	133	
1170	11/12/2010 11:41	61	72	-11	513-BKGDS1A	133	
1171	11/12/2010 11:41	82	72	10	513-BKGDS1A	133	
1172	11/12/2010 11:41	56	72	-16	513-BKGDS1A	133	Regard 1
1173	11/12/2010 11:43	60	72	-12	513-BKGDS1A	133	
1174	11/12/2010 11:43	58	72	-14	513-BKGDS1A	133	The state of the s
1175	11/12/2010 11:43	47	72	-25	513-BKGDS1A	133	
1176	11/12/2010 11:44	59	72	-13	513-BKGDS1A	133	
1177	11/12/2010 11:44	53	72	-19	513-BKGDS1A	133	
1178	11/12/2010 11:44	89	72	17	513-BKGDS1A	133	
1179	11/12/2010 11:44	74	72	2	513-BKGDS1A	133	
1180	11/12/2010 11:44	92	72	20	513-BKGDS1A	133	VI 41
1181	11/12/2010 11:44	101	72	29	513-BKGDS1A	133	
1182	11/12/2010 11:44		72	40	513-BKGDS1A	133	
1183	11/12/2010 11:45		72	34	513-BKGDS1A	133	
1184	11/12/2010 11:45	-	72	33	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1185	11/12/2010 11:45	87	72	15	513-BKGDS1A	133	
1186	11/12/2010 11:45	70	72	-2	513-BKGDS1A	133	
1187	11/12/2010 11:45	79	72	7	513-BKGDS1A	133	V400 = 1
1188	11/12/2010 11:46	67	72	-5	513-BKGDS1A	133	
1189	11/12/2010 11:46	63	72	-9	513-BKGDS1A	133	
1190	11/12/2010 11:46	78	72	6	513-BKGDS1A	133	
1191	11/12/2010 11:46	82	72	10	513-BKGDS1A	133	
1192	11/12/2010 11:46	104	72	32	513-BKGDS1A	133	
1193	11/12/2010 11:47	66	72	-6	513-BKGDS1A	133	
1194	11/12/2010 11:47	79	72	7	513-BKGDS1A	133	
1195	11/12/2010 11:48	59	72	-13	513-BKGDS1A	133	
1196	11/12/2010 11:48	62	72	-10	513-BKGDS1A	133	
1197	11/12/2010 11:48	58	72	-14	513-BKGDS1A	133	
1198	11/12/2010 11:48	66	72	-6	513-BKGDS1A	133	
1199	11/12/2010 11:48	67	72	-5	513-BKGDS1A	133	
1200	11/12/2010 11:48	64	72	-8	513-BKGDS1A	133	
1201	11/12/2010 11:48	53	72	-19	513-BKGDS1A	133	
1202	11/12/2010 11:48	77	72	5	513-BKGDS1A	133	
1203	11/12/2010 12:42	61	72	-11	513-BKGDS1A	133	
1204	11/12/2010 12:42	65	72	-7	513-BKGDS1A	133	YEARTHEALAND AIRCRAN
1205	11/12/2010 12:42	59	72	-13	513-BKGDS1A	133	
1206	11/12/2010 12:42	70	72	-2	513-BKGDS1A	133	
1207	11/12/2010 12:42	61	72	-11	513-BKGDS1A	133	
1208	11/12/2010 12:43	65	72	-7	513-BKGDS1A	133	
1209	11/12/2010 12:43	63	72	-9	513-BKGDS1A	133	
1210	11/12/2010 12:43	49	72	-23	513-BKGDS1A	133	
1211	11/12/2010 12:43	44	72	-28	513-BKGDS1A	133	
1212	11/12/2010 12:43	54	72	-18	513-BKGDS1A	133	= odlo
1213	11/12/2010 12:43	64	72	-8	513-BKGDS1A	133	
1214	11/12/2010 12:43	49	72	-23	513-BKGDS1A	133	
1215	11/12/2010 12:44	57	72	-15	513-BKGDS1A	133	
1216	11/12/2010 12:44	58	72	-14	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	N.
1217	11/12/2010 12:44	52	72	-20	513-BKGDS1A	133		
1218	11/12/2010 12:44	49	72	-23	513-BKGDS1A	133		
1219	11/12/2010 12:44	52	72	-20	513-BKGDS1A	133		
1220	11/12/2010 12:44	53	72	-19	513-BKGDS1A	133		
1221	11/12/2010 12:45	57	72	-15	513-BKGDS1A	133	A- H	
1222	11/12/2010 12:45	60	72	-12	513-BKGDS1A	133		
1223	11/12/2010 12:45	68	72	-4	513-BKGDS1A	133		
1224	11/12/2010 12:45	48	72	-24	513-BKGDS1A	133		i c
1225	11/12/2010 12:45	101	72	29	513-BKGDS1A	133	The second secon	
1226	11/12/2010 12:45	110	72	38	513-BKGDS1A	133		
1227	11/12/2010 12:46	83	72	11	513-BKGDS1A	133		
1228	11/12/2010 12:46	73	72	1	513-BKGDS1A	133		_
1229	11/12/2010 12:46	70	72	-2	513-BKGDS1A	133		
1230	11/12/2010 12:46	60	72	-12	513-BKGDS1A	133		
1231	11/12/2010 12:46	60	72	-12	513-BKGD\$1A	133		
1232	11/12/2010 12:47	49	72	-23	513-BKGDS1A	133		
1233	11/12/2010 12:47	45	72	-27	513-BKGDS1A	133		
1234	11/12/2010 12:47	73	72	1	513-BKGDS1A	133		
1235	11/12/2010 12:47	70	72	-2	513-BKGDS1A	133		
1236	11/12/2010 12:47	48	72	-24	513-BKGDS1A	133		
1237	11/12/2010 12:47	54	72	-18	513-BKGDS1A	133		
1238	11/12/2010 12:47	51	72	-21	513-BKGDS1A	133		
1239	11/12/2010 12:47	52	72	-20	513-BKGDS1A	133		
1240	11/12/2010 12:48	67	72	-5	513-BKGDS1A	133		
1241	11/12/2010 12:48	61	72	-11	513-BKGDS1A	133		
1242	11/12/2010 12:48	71	72	-1	513-BKGDS1A	133		
1243	11/12/2010 12:48	89	72	17	513-BKGDS1A	133		
1244	11/12/2010 12:48	71	72	-1	513-BKGDS1A	133		
1245	11/12/2010 12:49	64	72	-8	513-BKGDS1A	133		
1246	11/12/2010 12:49	84	72	12	513-BKGDS1A	133		
1247	11/12/2010 12:49	73	72	1	513-BKGDS1A	133		
1248	11/12/2010 12:49	61	72	-11	513-BKGDS1A	133		



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1249	11/12/2010 12:49	81	72	9	513-BKGDS1A	133	
1250	11/12/2010 12:49	76	72	4	513-BKGDS1A	133	
1251	11/12/2010 12:49	62	72	-10	513-BKGDS1A	133	
1252	11/12/2010 12:49	50	72	-22	513-BKGDS1A	133	
1253	11/12/2010 12:51	69	72	-3	513-BKGDS1A	133	
1254	11/12/2010 12:51	50	72	-22	513-BKGDS1A	133	
1255	11/12/2010 12:51	67	72	-5	513-BKGDS1A	133	
1256	11/12/2010 12:51	52	72	-20	513-BKGDS1A	133	
1257	11/12/2010 12:51	71	72	-1	513-BKGDS1A	133	
1258	11/12/2010 12:51	49	72	-23	513-BKGDS1A	133	
1259	11/12/2010 12:51	48	72	-24	513-BKGDS1A	133	
1260	11/12/2010 12:51						
_		72	72	0	513-BKGDS1A	133	
1261	11/12/2010 12:51	85	72	13	513-BKGDS1A	133	
1262	11/12/2010 12:52	78	72	6	513-BKGDS1A	133	
1263	11/12/2010 12:52	61	72	-11	513-BKGDS1A	133	
1264	11/12/2010 12:52	84	72	12	513-BKGDS1A	133	
1265	11/12/2010 12:52	87	72	15	513-BKGDS1A	133	
1266	11/12/2010 12:52	73	72	1	513-BKGDS1A	133	
1267	11/12/2010 12:54	48	72	-24	513-BKGDS1A	133	
1268	11/12/2010 12:54	72	72	0	513-BKGDS1A	133	
1269	11/12/2010 12:54	75	72	3	513-BKGDS1A	133	
1270	11/12/2010 12:54	76	72	4	513-BKGDS1A	133	
1271	11/12/2010 12:54	65	72	-7	513-BKGDS1A	133	
1272	11/12/2010 12:54	61	72	-11	513-BKGDS1A	133	
1273	11/12/2010 12:54	60	72	-12	513-BKGDS1A	133	250.5-018X
1274	11/12/2010 12:54	51	72	-21	513-BKGDS1A	133	
1275	11/12/2010 12:54	46	72	-26	513-BKGDS1A	133	
1276	11/12/2010 12:55	63	72	-9	513-BKGDS1A	133	
1277	11/12/2010 12:55	57	72	-15	513-BKGDS1A	133	
1278	11/12/2010 12:55	45	72	-27	513-BKGDS1A	133	
1279	11/12/2010 12:55	58	72	-14	513-BKGDS1A	133	
1280	11/12/2010 12:55	83	72	11	513-BKGDS1A	133	
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Area: 886.82 m² Site Area: 707 Survey Unit: 9 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1281	11/12/2010 12:55	77	72	5	513-BKGDS1A	133	
1282	11/12/2010 12:55	96	72	24	513-BKGDS1A	133	
1283	11/12/2010 13:40	45	72	-27	513-BKGDS1A	133	
1284	11/12/2010 13:40	42	72	-30	513-BKGDS1A	133	
1285	11/12/2010 13:40	71	72	-1	513-BKGDS1A	133	
1286	11/12/2010 13:41	64	72	-8	513-BKGDS1A	133	
1287	11/12/2010 13:41	64	72	-8	513-BKGDS1A	133	
1288	11/12/2010 13:41	71	72	-1	513-BKGDS1A	133	
1289	11/12/2010 13:41	62	72	-10	513-BKGDS1A	133	20 - 10 - 20 - 10 - 10 - 10 - 10 - 10 -
1290	11/12/2010 13:41	49	72	-23	513-BKGDS1A	133	
1291	11/12/2010 13:41	44	72	-28	513-BKGDS1A	133	
1292	11/12/2010 13:41	47	72	-25	513-BKGDS1A	133	
1293	11/12/2010 13:41	65	72	-7	513-BKGDS1A	133	
1294	11/12/2010 13:41	63	72	-9	513-BKGDS1A	133	
1295	11/12/2010 13:42	48	72	-24	513-BKGDS1A	133	
1296	11/12/2010 13:42	46	72	-26	513-BKGDS1A	133	
1297	11/12/2010 13:42	59	72	-13	513-BKGDS1A	133	
1298	11/12/2010 13:43	76	72	4	513-BKGDS1A	133	
1299	11/12/2010 13:43	42	72	-30	513-BKGDS1A	133	
1300	11/12/2010 13:43	65	72	-7	513-BKGDS1A	133	
1301	11/12/2010 13:43	60	72	-12	513-BKGDS1A	133	
1302	11/12/2010 13:43	44	72	-28	513-BKGDS1A	133	1907
1303	11/12/2010 13:43	42	72	-30	513-BKGDS1A	133	
1304	11/12/2010 13:43	59	72	-13	513-BKGDS1A	133	
1305	11/12/2010 13:43	60	72	-12	513-BKGDS1A	133	
1306	11/12/2010 13:44	-	72	-10	513-BKGDS1A	133	
1307	11/12/2010 13:44	62	72	-10	513-BKGDS1A	133	
1308	11/12/2010 13:44		72	3	513-BKGDS1A	133	
1309	11/12/2010 13:44		72	17	513-BKGDS1A	133	
1310	11/12/2010 13:44	Contract	72	9	513-BKGDS1A	133	
1311	11/12/2010 13:44		72	7	513-BKGDS1A	133	
1312	11/12/2010 13:44		72	12	513-BKGDS1A	133	



Site Area: 707 Class: 1 Survey Unit: 9 Area: 886.82 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1313	11/12/2010 13:44	91	72	19	513-BKGDS1A	133	
1314	11/12/2010 13:45	54	72	-18	513-BKGDS1A	133	
1315	11/12/2010 13:45	48	72	-24	513-BKGDS1A	133	
1316	11/12/2010 13:45	82	72	10	513-BKGDS1A	133	
1317	11/12/2010 13:46	58	72	-14	513-BKGDS1A	133	
1318	11/12/2010 13:46	64	72	-8	513-BKGDS1A	133	
1319	11/12/2010 13:46	56	72	-16	513-BKGDS1A	133	
1320	11/12/2010 13:46	59	72	-13	513-BKGDS1A	133	
1321	11/12/2010 13:46	61	72	-11	513-BKGDS1A	133	
1322	11/12/2010 13:46	56	72	-16	513-BKGDS1A	133	
1323	11/12/2010 13:46	60	72	-12	513-BKGDS1A	133	
1324	11/12/2010 13:46	47	72	-25	513-BKGDS1A	133	21 2.5 B.O U
1325	11/12/2010 13:46	46	72	-26	513-BKGDS1A	133	
1326	11/12/2010 13:47	56	72	-16	513-BKGDS1A	133	
1327	11/12/2010 13:47	48	72	-24	513-BKGDS1A	133	
1328	11/12/2010 13:47	49	72	-23	513-BKGDS1A	133	
1329	11/12/2010 13:47	41	72	-31	513-BKGDS1A	133	
1330	11/12/2010 13:47	48	72	-24	513-BKGDS1A	133	
1331	11/12/2010 13:48	57	72	-15	513-BKGDS1A	133	
1332	11/12/2010 13:48	51	72	-21	513-BKGDS1A	133	
1333	11/12/2010 13:48	85	72	13	513-BKGDS1A	133	
1334	11/12/2010 13:48	94	72	22	513-BKGDS1A	133	
1335	11/12/2010 13:48	70	72	-2	513-BKGDS1A	133	
1336	11/12/2010 13:48	69	72	-3	513-BKGDS1A	133	
1337	11/12/2010 13:48	49	72	-23	513-BKGDS1A	133	
1338	11/12/2010 13:49	55	72	-17	513-BKGDS1A	133	
1339	11/12/2010 13:49	61	72	-11	513-BKGDS1A	133	
1340	11/12/2010 13:49	64	72	-8	513-BKGDS1A	133	
1341	11/12/2010 13:49	72	72	0	513-BKGDS1A	133	
1342	11/12/2010 13:49	83	72	11	513-BKGDS1A	133	
1343	11/12/2010 13:49	73	72	1	513-BKGDS1A	133	
1344	11/12/2010 13:49	73	72	1	513-BKGDS1A	133	



Class: 1 Area: 886.82 m² Site Area: 707 Survey Unit: 9

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1345	11/12/2010 13:49	75	72	3	513-BKGDS1A	133		
1346	11/12/2010 13:49	55	72	-17	513-BKGDS1A	133		1
1347	11/12/2010 13:50	57	72	-15	513-BKGDS1A	133		
1348	11/12/2010 13:50	65	72	-7	513-BKGDS1A	133		
1349	11/12/2010 13:50	50	72	-22	513-BKGDS1A	133]
1350	11/12/2010 13:51	64	72	-8	513-BKGDS1A	133]
1351	11/12/2010 13:51	47	72	-25	513-BKGDS1A	133		
1352	11/12/2010 13:51	64	72	-8	513-BKGDS1A	133	AND THE PROPERTY OF THE PERSON	
1353	11/12/2010 13:51	77	72	5	513-BKGDS1A	133		
1354	11/12/2010 13:51	70	72	-2	513-BKGDS1A	133		
1355	11/12/2010 13:51	53	72	-19	513-BKGDS1A	133]
1356	11/12/2010 13:51	65	72	-7	513-BKGDS1A	133]
1357	11/12/2010 13:51	57	72	-15	513-BKGDS1A	133		
1358	11/12/2010 13:52	70	72	-2	513-BKGDS1A	133		
1359	11/12/2010 13:52	74	72	2	513-BKGDS1A	133]
1360	11/12/2010 13:52	103	72	31	513-BKGDS1A	133		
1361	11/12/2010 13:52	101	72	29	513-BKGDS1A	133]
1362	11/12/2010 13:52	81	72	9	513-BKGDS1A	133		
1363	11/12/2010 13:52	75	72	3	513-BKGDS1A	133]
1364	11/12/2010 13:52	62	72	-10	513-BKGDS1A	133		7
1365	11/12/2010 13:52	60	72	-12	513-BKGDS1A	133	1929	
1366	11/12/2010 13:52	67	72	-5	513-BKGDS1A	133		
1367	11/12/2010 13:53	58	72	-14	513-BKGDS1A	133		1
1368	11/12/2010 13:54	61	72	-11	513-BKGDS1A	133		
1369	11/12/2010 13:54	48	72	-24	513-BKGDS1A	133		
1370	11/12/2010 13:54	61	72	-11	513-BKGDS1A	133	49.494.19	
1371	11/12/2010 13:54	61	72	-11	513-BKGDS1A	133		
1372	11/12/2010 13:54		72	-24	513-BKGDS1A	133		
1373	11/12/2010 13:54	87	72	15	513-BKGDS1A	133]
1374	11/12/2010 13:54	101	72	29	513-BKGDS1A	133		
1375	11/12/2010 13:54	88	72	16	513-BKGDS1A	133		
1376	11/12/2010 13:54		72	7	513-BKGDS1A	133		Ī
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TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
	• • • • • • • • • • • • • • • • • • • •	Gamma	Background	Gamma	ID*	Investigation	
		СРМ	CPM	CPM		Level (cpm)	
1377	11/12/2010 13:55	68	72	-4	513-BKGDS1A	133	
1378	11/12/2010 13:55	47	72	-25	513-BKGDS1A	133	
1379	11/12/2010 13:55	47	72	-25	513-BKGDS1A	133	
1380	11/12/2010 13:55	72	72	0	513-BKGDS1A	133	
1381	11/12/2010 13:55	78	72	6	513-BKGDS1A	133	
1382	11/12/2010 13:55	76	72	4	513-BKGDS1A	133	
1383	11/12/2010 13:55	70	72	-2	513-BKGDS1A	133	
1384	11/12/2010 13:55	90	72	18	513-BKGDS1A	133	
1385	11/12/2010 13:56	62	72	-10	513-BKGDS1A	133	
1386	11/12/2010 13:56	44	72	-28	513-BKGDS1A	133	
1387	11/12/2010 13:56	43	72	-29	513-BKGDS1A	133	
1388	11/12/2010 13:57	51	72	-21	513-BKGDS1A	133	
1389	11/12/2010 13:57	79	72	7	513-BKGDS1A	133	
1390	11/12/2010 13:57	100	72	28	513-BKGDS1A	133	
1391	11/12/2010 13:57	116	72	44	513-BKGDS1A	133	
1392	11/12/2010 13:57	94	72	22	513-BKGDS1A	133	1778
1393	11/12/2010 13:57	80	72	8	513-BKGDS1A	133	
1394	11/12/2010 13:57	82	72	10	513-BKGDS1A	133	
1395	11/12/2010 13:57	65	72	-7	513-BKGDS1A	133	
1396	11/12/2010 13:58	57	72	-15	513-BKGDS1A	133	
1397	11/12/2010 13:58	84	72	12	513-BKGDS1A	133	
1398	11/12/2010 13:58	65	72	-7	513-BKGDS1A	133	
1399	11/12/2010 13:58	61	72	-11	513-BKGDS1A	133	2000
1400	11/12/2010 13:58	64	72	-8	513-BKGDS1A	133	
1401	11/12/2010 13:58	54	72	-18	513-BKGDS1A	133	
1402	11/12/2010 13:58	68	72	-4	513-BKGDS1A	133	
1403	11/12/2010 13:58	62	72	-10	513-BKGDS1A	133	
1404	11/12/2010 13:58	68	72	-4	513-BKGDS1A	133	
1405	11/12/2010 13:59	53	72	-19	513 BKGDS1A	133	
1406	11/12/2010 13:59	42	72	-30	513-BKGDS1A	133	
1407	11/12/2010 13:59	43	72	-29	513-BKGDS1A	133	
1408	11/12/2010 14:04	78	72	6	513-BKGDS1A	133	



Class: 1 Area: 886.82 m² Site Area: 707 Survey Unit: 9

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1409	11/12/2010 14:04	47	72	-25	513-BKGDS1A	133		
1410	11/12/2010 14:04	71	72	-1	513-BKGDS1A	133		ı
1411	11/12/2010 14:04	52	72	-20	513-BKGDS1A	133		ĺ
1412	11/12/2010 14:05	45	72	-27	513-BKGDS1A	133		
1413	11/12/2010 14:05	75	72	3	513-BKGDS1A	133		
1414	11/12/2010 14:05	87	72	15	513-BKGDS1A	133		I
1415	11/12/2010 14:05	70	72	-2	513-BKGDS1A	133		
1416	11/12/2010 14:05	97	72	25	513-BKGDS1A	133		
1417	11/12/2010 14:05	110	72	38	513-BKGDS1A	133		
1418	11/12/2010 14:05	103	72	31	513-BKGDS1A	133		
1419	11/12/2010 14:05	76	72	4	513-BKGDS1A	133		
1420	11/12/2010 14:06	76	72	4	513-BKGDS1A	133		
1421	11/12/2010 14:06	123	72	51	513-BKGDS1A	133		
1422	11/12/2010 14:06	89	72	17	513-BKGDS1A	133		
1423	11/12/2010 14:06	88	72	16	513-BKGDS1A	133		1
1424	11/12/2010 14:06	96	72	24	513-BKGDS1A	133		
1425	11/12/2010 14:06	116	72	44	513-BKGDS1A	133		
1426	11/12/2010 14:06	103	72	31	513-BKGDS1A	133		
1427	11/12/2010 14:06	87	72	15	513-BKGDS1A	133		1
1428	11/12/2010 14:06	74	72	2	513-BKGDS1A	133		Ī
1429	11/12/2010 14:07	57	72	-15	513-BKGDS1A	133	U site	1
1430	11/12/2010 14:07	45	72	-27	513-BKGDS1A	133		
1431	11/12/2010 14:07	65	72	-7	513-BKGDS1A	133		1
1432	11/12/2010 14:08	43	72	-29	513-BKGDS1A	133		1
1433	11/12/2010 14:08	77	72	5	513-BKGDS1A	133		
1434	11/12/2010 14:08	109	72	37	513-BKGDS1A	133		
1435	11/12/2010 14:08	94	72	22	513-BKGDS1A	133		
1436	11/12/2010 14:08		72	-3	513-BKGDS1A	133		Í
1437	11/12/2010 14:08	75	72	3	513-BKGDS1A	133		
1438	11/12/2010 14:08		72	4	513-BKGDS1A	133		-
1439	11/12/2010 14:08		72	10	513-BKGDS1A	133		
1440	11/12/2010 14:09		72	2	513-BKGDS1A	133		1



TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
1441	11/12/2010 14:09	88	72	16	513-BKGDS1A	133	
1442	11/12/2010 14:09	74	72	2	513-BKGDS1A	133	
1443	11/12/2010 14:09	86	72	14	513-BKGDS1A	133	
1444	11/12/2010 14:09	105	72	33	513-BKGDS1A	133	
1445	11/12/2010 14:09	73	72	1	513-BKGDS1A	133	
1446	11/12/2010 14:09	68	72	-4	513-BKGDS1A	133	
1447	11/12/2010 14:09	53	72	-19	513-BKGDS1A	133	
1448	11/12/2010 14:09	54	72	-18	513-BKGDS1A	133	
1449	11/12/2010 14:10	57	72	-15	513-BKGDS1A	133	
1450	11/12/2010 14:10	53	72	-19	513-BKGDS1A	133	
1451	11/12/2010 14:10	44	72	-28	513-BKGDS1A	133	
1452	11/12/2010 14:10	68	72	-4	513-BKGDS1A	133	277 477 - 4 - 44
1453	11/12/2010 14:15	71	72	-1	513-BKGDS1A	133	
1454	11/12/2010 14:15	43	72	-29	513-BKGDS1A	133	
1455	11/12/2010 14:16	50	72	-22	513-BKGDS1A	133	300301 10 101
1456	11/12/2010 14:16	59	72	-13	513-BKGDS1A	133	
1457	11/12/2010 14:16	53	72	-19	513-BKGDS1A	133	
1458	11/12/2010 14:16	101	72	29	513-BKGDS1A	133	
1459	11/12/2010 14:16	67	72	-5	513-BKGDS1A	133	<u> </u>
1460	11/12/2010 14:16	68	72	-4	513-BKGDS1A	133	
1461	11/12/2010 14:16				513-BKGDS1A		
1462	11/12/2010 14:16	63	72	-9		133	
1463			72	-12	513-BKGDS1A	133	
1464	11/12/2010 14:17	64	72	-8	513-BKGDS1A 513-BKGDS1A	133	
	11/12/2010 14:17	48	72	-24		133	
1465	11/12/2010 14:17	60	72	-12	513-BKGDS1A	133	
1466	11/12/2010 14:17	81	72	9	513-BKGDS1A	133	
1467	11/12/2010 14:17	79	72	7	513-BKGDS1A	133	
1468	11/12/2010 14:17	97	72	25	513-BKGDS1A	133	
1469	11/12/2010 14:17	63	72	-9	513-BKGDS1A	133	
1470	11/12/2010 14:17	60	72	-12	513-BKGDS1A	133	
1471	11/12/2010 14:17	65	72	-7	513-BKGDS1A	133	
1472	11/12/2010 14:18	86	72	14	513-BKGDS1A	133	



TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1473	11/12/2010 14:18	84	72	12	513-BKGDS1A	133	
1474	11/12/2010 14:18	70	72	-2	513-BKGDS1A	133	
1475	11/12/2010 14:19	47	72	-25	513-BKGDS1A	133	
1476	11/12/2010 14:19	64	72	-8	513-BKGDS1A	133	
1477	11/12/2010 14:19	83	72	11	513-BKGDS1A	133	
1478	11/12/2010 14:19	80	72	8	513-BKGDS1A	133	
1479	11/12/2010 14:20	104	72	32	513-BKGDS1A	133	
1480	11/12/2010 14:20	80	72	8	513-BKGDS1A	133	
1481	11/12/2010 14:20	67	72	-5	513-BKGDS1A	133	
1482	11/12/2010 14:20	68	72	-4	513-BKGDS1A	133	
1483	11/12/2010 14:20	63	72	-9	513-BKGDS1A	133	
1484	11/12/2010 14:20	56	72	-16	513-BKGDS1A	133	
1485	11/12/2010 14:20	49	72	-23	513-BKGDS1A	133	
1486	11/12/2010 14:20	61	72	-11	513-BKGDS1A	133	
1487	11/12/2010 14:20	60	72	-12	513-BKGDS1A	133	
1488	11/12/2010 14:21	92	72	20	513-BKGDS1A	133	
1489	11/12/2010 14:21	107	72	35	513-BKGDS1A	133	
1490	11/12/2010 14:21	68	72	-4	513-BKGDS1A	133	
1491	11/12/2010 14:21	46	72	-26	513-BKGDS1A	133	
1492	11/12/2010 14:21	67	72	-5	513-BKGDS1A	133	
1493	11/12/2010 14:21	45	72	-27	513-BKGDS1A	133	
1494	11/12/2010 14:21	72	72	0	513-BKGDS1A	133	
1495	11/12/2010 14:21	76	72	4	513-BKGDS1A	133	
1496	11/12/2010 14:22	70	72	-2	513-BKGDS1A	133	13.50
1497	11/12/2010 14:22	64	72	-8	513-BKGDS1A	133	1,54
1498	11/12/2010 14:22	59	72	-13	513-BKGDS1A	133	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1499	11/12/2010 14:22	50	72	-22	513-BKGDS1A	133	
1500	11/12/2010 14:23	68	72	-4	513-BKGDS1A	133	
1501	11/12/2010 14:23	45	72	-27	513-BKGDS1A	133	
1502	11/12/2010 14:23	53	72	-19	513-BKGDS1A	133	
1503	11/12/2010 14:23	49	72	-23	513-BKGDS1A	133	
1504	11/12/2010 14:23	56	72	-16	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
1505	11/12/2010 14:23	86	72	14	513-BKGDS1A	133	
1506	11/12/2010 14:23	81	72	9	513-BKGDS1A	133	
1507	11/12/2010 14:23	109	72	37	513-BKGDS1A	133	
1508	11/12/2010 14:24	79	72	7	513-BKGDS1A	133	
1509	11/12/2010 14:24	62	72	-10	513-BKGDS1A	133	
1510	11/12/2010 14:24	59	72	-13	513-BKGDS1A	133	
1511	11/12/2010 14:24	63	72	-9	513-BKGDS1A	133	0100
1512	11/12/2010 14:24	88	72	16	513-BKGDS1A	133	
1513	11/12/2010 14:24	66	72	-6	513-BKGDS1A	133	
1514	11/12/2010 14:24	78	72	6	513-BKGDS1A	133	
1515	11/12/2010 14:24	59	72	-13	513-BKGDS1A	133	
1516	11/12/2010 14:24	68	72	-4	513-BKGDS1A	133	
1517	11/12/2010 14:25	60	72	-12	513-BKGDS1A	133	
1518	11/12/2010 14:25	87	72	15	513-BKGDS1A	133	
1519	11/12/2010 14:25	46	72	-26	513-BKGDS1A	133	
1520	11/12/2010 14:26	58	72	-14	513-BKGDS1A	133	
1521	11/12/2010 14:26	85	72	13	513-BKGDS1A	133	
1522	11/12/2010 14:26	86	72	14	513-BKGDS1A	133	
1523	11/12/2010 14:26	70	72	-2	513-BKGDS1A	133	
1524	11/12/2010 14:26	77	72	5	513-BKGDS1A	133	
1525	11/12/2010 14:26	73	72	1	513-BKGDS1A	133	
1526	11/12/2010 14:26	78	72	6	513-BKGDS1A	133	
1527	11/12/2010 14:26	68	72	-4	513-BKGDS1A	133	
1528	11/12/2010 14:27	55	72	-17	513-BKGDS1A	133	
1529	11/12/2010 14:27	74	72	2	513-BKGDS1A	133	
1530	11/12/2010 14:27	55	72	-17	513-BKGDS1A	133	
1531	11/12/2010 14:27	57	72	-15	513-BKGDS1A	133	
1532	11/12/2010 14:27	72	72	0	513-BKGDS1A	133	
1533	11/12/2010 14:27	80	72	8	513-BKGDS1A	133	
1534	11/12/2010 14:27	105	72	33	513-BKGDS1A	133	
1535	11/12/2010 14:27	81	72	9	513-BKGDS1A	133	
1536	11/12/2010 14:27	68	72	-4	513-BKGDS1A	133	



Site Area: 707 Area: 886.82 m² Class: 1 Survey Unit: 9

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1537	11/12/2010 14:28	68	72	-4	513-BKGDS1A	133	
1538	11/12/2010 14:28	66	72	-6	513-BKGDS1A	133	
1539	11/12/2010 14:28	50	72	-22	513-BKGDS1A	133	
1540	11/12/2010 14:28	57	72	-15	513-BKGDS1A	133	
1541	11/12/2010 14:29	54	72	-18	513-BKGDS1A	133	
1 <mark>5</mark> 42	11/12/2010 14:29	41	72	-31	513-8KGDS1A	133	
1543	11/12/2010 14:29	43	72	-29	513-BKGDS1A	133	
1544	11/12/2010 14:29	77	72	5	513-BKGDS1A	133	g g g g g g g g g g g g g g g g g g g
1545	11/12/2010 14:29	57	72	-15	513-BKGDS1A	133	
1546	11/12/2010 14:29	43	72	-29	513-BKGDS1A	133	
1547	11/12/2010 14:29	52	72	-20	513-BKGDS1A	133	
1548	11/12/2010 14:29	49	72	-23	513-BKGDS1A	133	
1549	11/12/2010 14:30	53	72	-19	513-BKGDS1A	133	
1550	11/12/2010 14:30	76	72	4	513-BKGDS1A	133	
1551	11/12/2010 14:30	82	72	10	513-BKGDS1A	133	
1552	11/12/2010 14:30	77	72	5	513-BKGDS1A	133	
1553	11/12/2010 14:30	53	72	-19	513-BKGDS1A	133	10 M
1554	11/12/2010 14:30	89	72	17	513-BKGDS1A	133	
1555	11/12/2010 14:30	75	72	3	513-BKGDS1A	133	
1556	11/12/2010 14:30	72	72	0	513-BKGDS1A	133	
1557	11/12/2010 14:30	85	72	13	513-BKGDS1A	133	
1558	11/12/2010 14:31	78	72	6	513-BKGDS1A	133	
1559	11/12/2010 14:31	79	72	7	513-BKGDS1A	133	
1560	11/12/2010 14:31		72	8	513-BKGDS1A	133	9/35 4/35
1561	11/12/2010 14:31	84	72	12	513-BKGDS1A	133	
1562	11/12/2010 14:31	76	72	4	513-BKGDS1A	133	
1563	11/12/2010 14:31		72	29	513-BKGDS1A	133	
1564	11/12/2010 14:31	96	72	24	513-BKGDS1A	133	
1565	11/12/2010 14:32	68	72	-4	513-BKGDS1A	133	
1566	11/12/2010 14:32	47	72	-25	513-BKGDS1A	133	
1567	11/12/2010 14:32	-	72	-11	513-BKGDS1A	133	
1568	11/12/2010 14:32		72	-17	513-BKGDS1A	133	



TETRATECH EC, INC. Gamma Scan Measurement Report Bunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

	79-14						THE STATE OF THE S
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma	Background ID*	3σ Investigation Level (cpm)	Comments
				СРМ			
1569	11/12/2010 14:33	47	72	-25	513-BKGDS1A	133	
1570	11/12/2010 14:33	54	72	-18	513-BKGDS1A	133	
1571	11/12/2010 14:33	67	72	-5	513-BKGDS1A	133	
1572	11/12/2010 14:33	115	72	43	513-BKGDS1A	133	
1573	11/12/2010 14:33	109	72	37	513-BKGDS1A	133	
1574	11/12/2010 14:33	78	72	6	513-BKGDS1A	133	
1575	11/12/2010 14:33	78	72	6	513-BKGDS1A	133	
1576	11/12/2010 14:33	104	72	32	513-BKGDS1A	133	18 at 2 - 2
1577	11/12/2010 14:34	74	72	2	513-BKGDS1A	133	
1578	11/12/2010 14:34	54	72	-18	513-BKGDS1A	133	
1579	11/12/2010 14:34	44	72	-28	513-BKGDS1A	133	
1580	11/12/2010 14:34	48	72	-24	513-BKGDS1A	133	
1581	11/12/2010 14:34	78	72	6	513-BKGDS1A	133	
1582	11/12/2010 14:34	68	72	-4	513-BKGDS1A	133	
1583	11/12/2010 14:34	63	72	-9	513-BKGDS1A	133	
1584	11/12/2010 14:34	55	72	-17	513-BKGDS1A	133	
1585	11/12/2010 14:34	65	72	-7	513-BKGDS1A	133	
1586	11/12/2010 14:35	53	72	-19	513-BKGDS1A	133	
1587	11/12/2010 14:35	58	72	-14	513-BKGDS1A	133	
1588	11/12/2010 14:35	64	72	-8	513-BKGDS1A	133	
1589	11/12/2010 14:36	79	72	7	513-BKGDS1A	133	
1590	11/12/2010 14:36	48	72	-24	513-BKGDS1A	133	
1591	11/12/2010 14:36	41	72	-31	513-BKGDS1A	133	
1592	11/12/2010 14:36	53	72	-19	513-BKGDS1A	133	
1593	11/12/2010 14:36	64	72	-8	513-BKGDS1A	133	
1594	11/12/2010 14:36	55	72	-17	513-BKGDS1A	133	
1595	11/12/2010 14:36	47	72	-25	513-BKGDS1A	133	
1596	11/12/2010 14:36	60	72	-12	513-BKGDS1A	133	
1597	11/12/2010 14:36	55	72	-17	513-BKGDS1A	133	
1598	11/12/2010 14:37	56	72	-16	513-BKGDS1A	133	
159 9	11/12/2010 14:37	57	72	-15	513-BKGDS1A	133	
1600	11/12/2010 14:37	71	72	-1	513-BKGDS1A	133	



Area: 886.82 m² Site Area: 707 Class: 1 Survey Unit: 9

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1601	11/12/2010 14:37	95	72	23	513-BKGDS1A	133	
1602	11/12/2010 14:37	82	72	10	513-BKGDS1A	133	The second secon
1603	11/12/2010 14:37	69	72	-3	513-BKGDS1A	133	
1604	11/12/2010 14:37	69	72	-3	513-BKGDS1A	133	
1605	11/12/2010 14:37	75	72	3	513-BKGDS1A	133	
1606	11/12/2010 14:37	61	72	-11	513-BKGDS1A	133	
1607	11/12/2010 14:38	88	72	16	513-BKGDS1A	133	
1608	11/12/2010 14:38	83	72	11	513-BKGDS1A	133	02.02.50
1609	11/12/2010 14:38	85	72	13	513-BKGDS1A	133	
1610	11/12/2010 14:38	108	72	36	513-BKGDS1A	133	17 50
1611	11/12/2010 14:38	75	72	3	513-BKGDS1A	133	page 1
L 61 2	11/12/2010 14:38	62	72	-10	513-BKGDS1A	133	
613	11/12/2010 14:39	82	72	10	513-BKGDS1A	133	
1614	11/12/2010 14:39	46	72	-26	513-BKGDS1A	133	
L615	11/12/2010 14:39	62	72	-10	513-BKGDS1A	133	
L616	11/12/2010 14:40	91	72	19	513-BKGDS1A	133	
1617	11/12/2010 14:40	104	72	32	513-BKGDS1A	133	
1618	11/12/2010 14:40	72	72	0	513-BKGDS1A	133	
1619	11/12/2010 14:40	84	72	12	513-BKGDS1A	133	
1620	11/12/2010 14:40	66	72	-6	513-BKGDS1A	133	
1621	11/12/2010 14:40	63	72	-9	513-BKGDS1A	133	
1622	11/12/2010 14:40	50	72	-22	513-BKGDS1A	133	
1623	11/12/2010 14:40	49	72	-23	513-BKGDS1A	133	
1624	11/12/2010 14:41	73	72	1	513-BKGDS1A	133	The state of the s
1625	11/12/2010 14:41	82	72	10	513-BKGDS1A	133	
1626	11/12/2010 14:41	70	72	-2	513-BKGDS1A	133	
1627	11/12/2010 14:41	64	72	-8	513-BKGDS1A	133	
1628	11/12/2010 14:41	73	72	1	513-BKGDS1A	133	
1629	11/12/2010 14:41	99	72	27	513-BKGDS1A	133	
1630	11/12/2010 14:41	96	72	24	513-BKGDS1A	133	
1631	11/12/2010 14:41	110	72	38	513-BKGDS1A	133	
1632	11/12/2010 14:41	119	72	47	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
1633	11/12/2010 14:42	118	72	46	513-BKGDS1A	133	
1634	11/12/2010 14:42	83	72	11	513-BKGDS1A	133	
1635	11/12/2010 14:43	49	72	-23	513-BKGDS1A	133	
1636	11/12/2010 14:43	79	72	7	513-BKGDS1A	133	
1637	11/12/2010 14:43	66	72	-6	513-BKGDS1A	133	
1638	11/12/2010 14:43	41	72	-31	513-BKGDS1A	133	
1639	11/12/2010 14:43	72	72	0	513-BKGDS1A	133	
1640	11/12/2010 14:43	48	72	-24	513-BKGDS1A	133	13.74h
1641	11/12/2010 14:43	58	72	-14	513-BKGDS1A	133	100 100
1642	11/12/2010 14:43	58	72	-14	513-BKGDS1A	133	
1643	11/12/2010 14:43	56	72	-16	513-BKGDS1A	133	
1644	11/12/2010 14:44	71	72	-1	513-BKGDS1A	133	
1645	11/12/2010 14:44	81	72	9	513-BKGDS1A	133	
1646	11/12/2010 14:44	66	72	∙ 6	513-BKGD\$1A	133	
1647	11/12/2010 14:44	69	72	-3	513-BKGDS1A	133	
1648	11/12/2010 14:44	67	72	-5	513-BKGDS1A	133	
1649	11/12/2010 14:44	85	72	13	513-BKGDS1A	133	
1650	11/12/2010 14:44	77	72	5	513-BKGDS1A	133	
1651	11/12/2010 14:44	84	72	12	513-BKGDS1A	133	
1652	11/12/2010 14:44	97	72	25	513-BKGDS1A	133	
1653	11/12/2010 14:45	80	72	8	513-BKGDS1A	133	
1654	11/12/2010 14:45	62	72	-10	513-BKGDS1A	133	
1655	11/12/2010 14:45	68	72	-4	513-BKGDS1A	133	
1656	11/12/2010 14:45	91	72	19	513-BKGDS1A	133	
1657	11/12/2010 14:46	64	72	-8	513-BKGDS1A	133	
1658	11/12/2010 14:46	73	72	1	513-BKGDS1A	133	
1659	11/12/2010 14:46	82	72	10	513-BKGDS1A	133	
1660	11/12/2010 14:46	90	72	18	513-BKGDS1A	133	
1661	11/12/2010 14:46	101	72	29	513-BKGDS1A	133	
1662	11/12/2010 14:46	69	72	-3	513-BKGDS1A	133	
1663	11/12/2010 14:46	100	72	28	513-BKGDS1A	133	
1664	11/12/2010 14:46	75	72	3	513-BKGDS1A	133	



Survey Unit: 9 Class: 1 Area: 886.82 m² Site Area: 707

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
1665	11/12/2010 14:47	72	72	0	513-BKGDS1A	133	
1666	11/12/2010 14:47	95	72	23	513-BKGDS1A	133	
1667	11/12/2010 14:47	89	72	17	513-BKGDS1A	133	
1668	11/12/2010 14:47	98	72	26	513-BKGDS1A	133	
1669	11/12/2010 14:47	77	72	5	513-BKGDS1A	133	
1670	11/12/2010 14:47	50	72	-22	513-BKGDS1A	133	
1671	11/12/2010 14:47	48	72	-24	513-BKGDS1A	133	
1672	11/12/2010 14:47	42	72	-30	513-BKGDS1A	133	
1673	11/12/2010 14:47	52	72	-20	513-BKGDS1A	133	
1674	11/12/2010 14:48	48	72	-24	513-BKGDS1A	133	10 Page 10 Pag
1675	11/12/2010 14:48	68	72	-4	513-BKGDS1A	133	- 10 mm
1676	11/12/2010 14:48	50	72	-22	513-BKGDS1A	133	
1677	11/12/2010 14:49	82	72	10	513-BKGDS1A	133	
1678	11/12/2010 14:49	99	72	27	513-BKGDS1A	133	
1679	11/12/2010 14:49	84	72	12	513-BKGDS1A	133	
1680	11/12/2010 14:49	89	72	17	513-BKGDS1A	133	
1681	11/12/2010 14:49	82	72	10	513-BKGDS1A	133	
1682	11/12/2010 14:49	54	72	-18	513-BKGDS1A	133	
1683	11/12/2010 14:49		72	-24	513-BKGDS1A	133	
1684	11/12/2010 14:49	66	72	-6	513-BKGDS1A	133	
1685	11/12/2010 14:49	-	72	-23	513-BKGDS1A	133	
1686	11/12/2010 14:50		72	-16	513-BKGDS1A	133	
1687	11/12/2010 14:50		72	-8	513-BKGDS1A	133	
1688	11/12/2010 14:50		72	-4	513-BKGDS1A	133	01.
1689	11/12/2010 14:50		72	-8	513-BKGDS1A	133	
1690	11/12/2010 14:50		72	10	513-BKGDS1A	133	N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1691	11/12/2010 14:50		72	15	513-BKGDS1A	133	
1692	11/12/2010 14:50		72	21	513-BKGDS1A	133	
1693	11/12/2010 14:50		72	11	513-BKGDS1A	133	
1694	11/12/2010 14:51		72	9	513-BKGDS1A	133	
1695	11/12/2010 14:51		72	8	513-BKGDS1A	133	
1696	11/12/2010 14:51		72	5	513-BKGDS1A	133	



Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 9 Class: 1 Area: 886.82 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1697	11/12/2010 14:51	43	72	-29	513-BKGDS1A	133	
1698	11/12/2010 14:51	73	72	1	513-BKGDS1A	133	
1699	11/12/2010 14:52	73	72	1	513-BKGDS1A	133	
1700	11/12/2010 14:52	87	72	15	513-BKGDS1A	133	
1701	11/12/2010 14:52	80	72	8	513-BKGDS1A	133	
1702	11/12/2010 14:52	70	72	-2	513-BKGDS1A	133	
1703	11/12/2010 14:52	68	72	-4	513-BKGDS1A	133	
1704	11/12/2010 14:52	59	72	-13	513-BKGDS1A	133	
1705	11/12/2010 14:52	66	72	-6	513-BKGDS1A	133	
1706	11/12/2010 14:52	51	72	-21	513-BKGDS1A	133	
1707	11/12/2010 14:52	44	72	-28	513-BKGDS1A	133	
1708	11/12/2010 14:53	60	72	-12	513-BKGDS1A	133	220
1709	11/12/2010 14:53	64	72	-8	513-BKGDS1A	133	
1710	11/12/2010 14:53	103	72	31	513-BKGDS1A	133	
1711	11/12/2010 14:53	92	72	20	513-BKGDS1A	133	
1712	11/12/2010 14:53	66	72	-6	513-BKGDS1A	133	
1713	11/12/2010 14:53	94	72	22	513-BKGDS1A	133	
1714	11/12/2010 14:53	66	72	-6	513-BKGDS1A	133	23(3)(0
1715	11/12/2010 14:53	60	72	-12	513-BKGDS1A	133	11 288
1716	11/12/2010 14:54	87	72	15	513-BKGDS1A	133	
1717	11/12/2010 14:54	68	72	-4	513-BKGDS1A	133	
1718	11/12/2010 14:54	64	72	-8	513-BKGDS1A	133	0 c 150 x 100 x 10
1719	11/12/2010 14:54	57	72	-15	513-BKGDS1A	133	The second secon
1720	11/12/2010 14:54	50	72	-22	513-BKGDS1A	133	

Net Gamma cpm Summary Min: -31

Α.

Avg: 0

Max: 61

St Dev: 17

Readings > 3 σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area **Background Report**

Area: 886.82 m²

Survey Unit: 9 Site Area: 707 Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 513

Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228703

Probe Serial #: 091806C1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 513-BKGDS1A Count Time (minutes): 1.00

Class: 1

129		
Rdg#	Date and Time	Gross Gamma CPM
1	11/02/2010 7:32	51
2	11/02/2010 7:34	90
3	11/02/2010 7:35	57
4	11/02/2010 7:36	77
5	11/02/2010 7:38	63
6	11/02/2010 7:39	84
7	11/02/2010 7:40	89
8	11/02/2010 7:41	141
9	11/02/2010 7:42	71
10	11/02/2010 7:44	46
11	11/02/2010 7:45	76
12	11/02/2010 7:46	65
13	11/02/2010 7:48	58
14	11/02/2010 7:49	. 65
15	11/02/2010 7:50	67
16	11/02/2010 7:51	81
17	11/02/2010 7:52	72
18	11/02/2010 7:54	56
19	11/02/2010 7:55	62
20	11/02/2010 7:56	65
	-1 V) -7 - (1) - 1 (1) - 1 V	

Gamma Mean Background (cpm):

72

Standard Deviation:

20

Gamma 3_o Investigation

133

Level (cpm):

Survey Unit: 9 Site Area: 707 Class: 1 Area: 886.82 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 421-BKGDS1

Instrument Serial Number:

167145

Identification #: Reference Area Background

Parcel D-1

Instrument Calibration Due Date: 3/5/2011

Location:

Reference

Exposure Rate

5

Background (μR/hr):

Rdg#	Date	Exposure Rate (µR/hr)	Comments
1	11/22/2010	6	
2	11/22/2010	6	
3	11/22/2010	6	
4	11/22/2010	7	
5	11/22/2010	7	
6	11/22/2010	7	
7	11/22/2010	6	
8	11/22/2010	6	
9	11/22/2010	6	
10	11/22/2010	7	
11	11/22/2010	6	
12	11/22/2010	6	
13	11/22/2010	7	
14	11/22/2010	6	
15	11/22/2010	6	
16	11/22/2010	6	
17	11/22/2010	7	
18	11/22/2010	8	
19	11/22/2010	8	
20	11/22/2010	8	
21	11/30/2010	7	
22	11/30/2010	8	
23	11/30/2010	8	
24	11/30/2010	7	
25	11/30/2010	7	
26	11/30/2010		
27	11/30/2010	7	



TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	1/7/2011	5	
29	1/7/2011	6	
30	1/7/2011	7	
31	1/20/2011	6	
32	1/20/2011	6	
33	2/16/2011	5	
34	2/16/2011	5	

Instrument Model:

Model 19

Reference Area Background

578-BKGDS1

Instrument Serial Number:

207505

Reference Area Background

Parcel D-1

2/24/2012 Instrument Calibration Due Date:

Location:

Identification #:

Reference

Exposure Rate

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
35	3/8/2011	6	
36	3/8/2011	6	
37	3/8/2011	4	
38	3/8/2011	6	
39	3/8/2011	6	
40	3/8/2011	6	
41	3/8/2011	6	
42	3/8/2011	6	
43	3/8/2011	6	
44	3/8/2011	6	
45	3/8/2011	6	
46	3/8/2011	6	
47	3/8/2011	6	
48	3/8/2011	6	
49	3/8/2011	6	
50	3/8/2011	6	
51	3/8/2011	6	
52	3/8/2011	6	
53	3/8/2011	6	
54	3/8/2011	6	
55	5/5/2011	6	



TETRA TECH EC, INC. Hunters Point Shipyard San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
56	5/5/2011	6	
57	5/5/2011	6	
58	5/5/2011	5	
59	6/8/2011	5	
60	6/8/2011	5	
61	6/8/2011	5	
62	6/8/2011	5	
63	6/8/2011	5	
64	6/8/2011	5	
65	6/8/2011	5	
66	6/8/2011	5	
67	6/8/2011	5	
68	6/8/2011	5	
69	6/8/2011	5	
70	6/8/2011	5	
71	6/8/2011	5	
72	6/8/2011	5	
73	6/8/2011	5	
74	6/8/2011	5	
75	6/8/2011	5	
76	6/8/2011	6	
77	6/8/2011	6	
78	6/8/2011	6	

Exposure Rate Summary (µR/hr)

Min: 4.00

Avg: 6.00

Max: 8.00

St Dev: 0.88

Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRATECH EC, INC.

San Diego, CA 92101

BFS 01726

Š Project Information START FMD DEPTH Section LOCATION ONSITE - NWT COMMENTS LABORATORY NAME AUORATORY TO A H L H A -Σ Σ Σ > [2] Σ [2] Σ Σ Σ 2 \square **∞** ₩ **0** 0 ひまけらず以内やの \square \square $[\Sigma]$ Σ $oldsymbol{\Sigma}$ Σ $oldsymbol{\Sigma}$ $\mathbf{\Sigma}$ Σ Z Σ Containers | LEVEL | TYPE Project Chemist Phone 949-756-7592 Ø Ø S Ø S ഗ Ø တ Ø S ഗ Ø 3670-003 Ş Project Number Airbill Number PO Number TIME 01102/2011 Sh10 0102/2311 11/22/2010 0750 11/22/2010 09800 11/22/2010 08/05 11222010 C735 11/22/2010 0755 11222010 083.51 11222010 083D 11/22/2010 00/2 10 0C80 01021211 117222010 OSIS DATE Project Name Radiological Building Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name ROLFE 03707-S0009-F001-01 03707-S0009-F002-01 03707-S0009-F005-01 03707-S0009-F007-01 03707-S0009-F008-01 03707-S0009-F012-01 03707-S0009-F003-01 03707-S0009-F004-01 03707-S0009-F006-01 03707-S0009-F009-01 03707-S0009-F010-01 03707-S0009-F011-01 SAMPLE_ID

Relinguished pro (signatury)	Date 1/- 22-10	Date 12-10 Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
company RSRS	Time 1508	Company	The state of the s	SULDING 767 REPORTE
Relinguished by: (signaturo)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	SVATE WATER 1-20
Сотрану	Time	Сотрапу		
Relinguished by: (signature)	Date	Received by: (signature)	SAMPLE, CONDITION IN ON RECEIPT (FOR LABORATORY)	
Соптрану	Тіте	Сотрапу	TEMPERATURE: SAMILE.CONDITION: COOLER-SEAL:	RECELE

TETKA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

Chain-of-Custody Record

BFS 01727

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Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRATECH EC.INC.

San Diego, CA 92101

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Project Information Section ONSITE - NWT CABORATORY NAME ABORATORY A H P C A S 24 6 0 D & Z Z & o d 3670-003 N/A ¥ Project Number Airbill Number PO Number Project Name Radiological Building Survey Project Location HUNTERS POINT Sumpler Name | Rolfe

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AAATECH EC, INC. 1230 Columbia St. Suite 750

San Diego, CA 92101

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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St. Suite 750

San Diego, CA 92101

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1230 Columbia St. Suite 750

San Diego, CA 92101

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TEX-SATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Project Name

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TETRATECH EC, INC. 1230 Columbia St. Suite 750 San Diego, CA 92101

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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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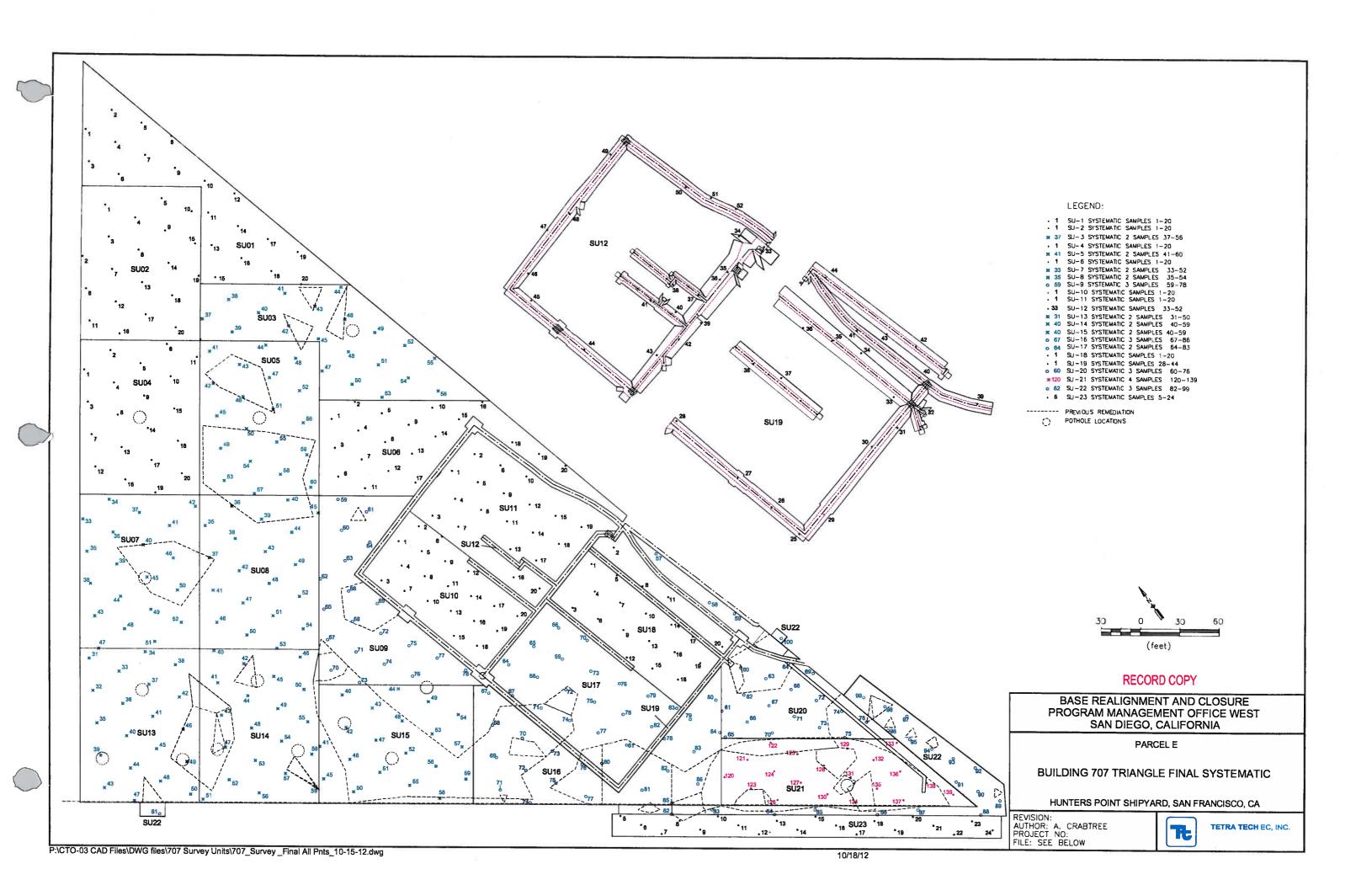
1230 Columbia St, Suite 750 TETRATECH EC, INC.

San Diego, CA 92101

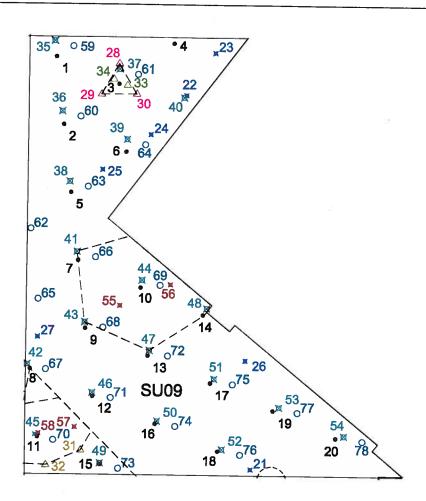
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HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 9



TETRA TECH EC, IN C

1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Report Date: November 22, 2010 RAD EMAC - CTO 002

Overview

The HPS Team continued field activities in Buildings 203, 241, 271 and 272, and Work Area #33. Details of the work activities performed are provided in the sections below.

Building 203

Pre-survey activities were continued by the HPS Team with the investigation of floor drains for traces of Hg contamination.

Building 241

Pre-survey activities were continued by the HPS Team with the investigation of floor drains for traces of mercury contamination and measuring proposed Class 1 survey areas.

Building 271

Pre-survey activities were continued by the HPS Team with the investigation of floor drains for traces of mercury contamination and the ongoing removal of interior walls and radiological surface scans of generated metal and wood debris; no contamination was identified during the scanning activities.

Building 272

Pre-survey activities were continued by the HPS Team with the investigation of floor drains for traces of mercury contamination.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: November 22, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #21 and #22. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 90 cpm for the FIDLER and 8,423 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 109 cpm for the FIDLER and 8,502 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

Following a review of analytical results from Survey Unit 5, staged asphalt debris from Grids 18, 20 and 22 were transferred to the recycling stockpile.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

The HPS Team and the RASO concurred with backfilling Trench Unit No. 182.

A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

DAILY STATUS REPORT HPS Base-Wide Activities

Report Dates: November 22, 2010 RAC V

Overview

The HPS team continued with Base-wide activities under CTO 18. Active work areas currently consist of Parcel B, Parcel C, Parcel D-1, Parcel E, Parcel G and Utility Corridor 3. Work performed, including support provided to other HPS contractors, is detailed within the categories that follow:

HPS Site-wide Activities

Start of shift:

- + Restricted areas unlocked/established for daily activities: complete
- + Operational check prerequisites for project field instrumentation/machinery/equipment use: complete NRC license compliance:
- + Attendance for regularly scheduled radiological awareness brief (Monday's): 0
- + Dosimetry assignments completed in support of radiologically controlled work tasks: 0
- + Routine radiological surveys: Daily 3; Weekly 14; Monthly 0
- + Radiological status surveys (equipment and material): incoming -0; outgoing -0; truck portal -0
- + Radiological postings upkeep and maintenance: ongoing

Radiological oversight, support, and field coverage (other contractors):

- + Kleinfelder Sampling activities at groundwater monitoring wells (miscellaneous Basewide locations) End of shift:
- + Project field instrument/machinery/equipment accountability and inventory status: complete
- + Restricted areas secured for day: complete

On-site Radiological Laboratory Activities

Laboratory technicians worked two shifts and supported document control and review, bin inventories, and housekeeping activities.

Gamma spectroscopy detectors available and operational for analytical analysis needs: 8

Protean units available and operational for analytical analysis needs: 1 (Friday and Saturday) Samples analyzed:

- + Protean swipe samples 125
- + Protean air monitoring media 3
- + Gamma spectroscopy samples 72

Total number of gamma spectroscopy samples recounted:

+ Soil samples - 22

Total number of samples in process or awaiting analysis:

+ Gamma spectroscopy samples - 733

Other:

+ Samples sent for offsite analysis – 60 (Tetra Tech)

Note: + Samples processed for Alameda: 0

- + Samples processed for HPS:
 - Shaw D1: 0
 - Shaw PCB: 0
 - ERRG: 0

RSY2

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

Excavated soil (ES) pile ES349, Pad C07; stockpiling pad contents pending receipt of Sr-90 analytical results: ongoing

ES pile ES354, Pad C10; stockpiling pad contents pending receipt of Sr-90 analytical results: ongoing

ES pile ES 355, Pad C09; preliminary preparation for systematic and biased sampling: ongoing

ES pile ES 358, Pad C21; systematic and biased sampling activities: complete

ES pile ES 361, Pad C22; systematic and biased sampling activities: complete

Receiving soil from Shaw work area (WA) 24 as ES pile ES 364, Pad C26: ongoing

RSY3:

No activities planned / conducted

RSY4:

No activities planned / conducted

RASO Notification, Approval and Survey/Sample Results

Received concurrence specific to: "Parcel UC 3 Backfilling Operations at WA 16, Trench Unit 182.

HPS LLRW Bin Activities

Empty bins staged for active use: 0

Bins receiving material in support of day's activities: 0

Bins receiving radiological assessment; resulting samples submitted to on-site analytical lab: 0

Prior week's bin count transferred to EMS for storage in the Parcel C bin storage area (reported every Monday): N/A

Support to Other Contracts / Organizations

Provided radiological field coverage for:

+ Kleinfelder

Provided analytical laboratory services for:

+ N/A



Report Date: November 30, 2010 RAD EMAC – CTO 002

Overview

The HPS Team continued field activities in Building 271 and Work Area #33. Details of the work activities performed are provided in the sections below.

Building 271

The HPS Team completed dismantling the radiologically cleared and released ventilation hood (M&E Survey #HPS-ME-B271-002) and transferred the hood sections to Building 281 for storage.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: November 30, 2010	EMAC – CTO 03
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Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team performed Class 1 survey activities in Survey Unit 1. A total of 18 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 83 cpm for the FIDLER and 7,726 cpm. In addition, 9 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 6. A total of 10 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 91 cpm for the FIDLER and 7,608 cpm. In addition, 5 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 14 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 95 cpm for the FIDLER and 8,746 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 10. A total of 20 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 190 cpm for the FIDLER and 8,419 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 11. A total of 24 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 158 cpm for the FIDLER and 8,201 cpm. In addition, 12 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of 32 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 220 cpm for the FIDLER and 9,743 cpm. In addition, 16 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

Backfilling activities were initiated for Trench Unit No. 183 by the HPS Team.

The HPS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 187 along with a request for concurrence to backfill.

A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

DAILY STATUS REPORT HPS Base-Wide Activities

Report Dates: November 30, 2010 RAC V

Overview

The HPS team continued with Base-wide activities under CTO 18. Active work areas currently consist of Parcel B, Parcel C, Parcel D-1, Parcel E, Parcel G and Utility Corridor 3. Work performed, including support provided to other HPS contractors, is detailed within the categories that follow:

HPS Site-wide Activities

Start of shift:

- + Restricted areas unlocked/established for daily activities: completed.
- + Operational check prerequisites for project field instrumentation/machinery/equipment use: completed. NRC license compliance:
- + Attendance for regularly scheduled radiological awareness brief (Monday's): N/A
- + Dosimetry assignments completed in support of radiologically controlled work tasks: 0
- + Routine radiological surveys: Daily 3; Weekly 8; Monthly 0
- + Radiological status surveys (equipment and material): incoming -0; outgoing -0; truck portal -0
- + Radiological postings upkeep and maintenance: ongoing

Radiological oversight, support, and field coverage (other contractors):

- + Support for Shaw activities in RSY2 (transfer of ES to pads).
- + Support for Kleinfelder sampling activities at groundwater monitoring wells (miscellaneous Basewide locations).

End of shift:

- + Project field instrument/machinery/equipment accountability and inventory status: completed.
- + Restricted areas secured for day: completed.

On-site Radiological Laboratory Activities

Laboratory technicians worked two shifts and supported document control and review, bin inventories, and housekeeping activities.

Gamma spectroscopy detectors available and operational for analytical analysis needs: 8

Protean units available and operational for analytical analysis needs: 1

Samples analyzed:

- + Protean swipe samples 24
- + Protean air monitoring media 5
- + Gamma spectroscopy samples 85

Total number of gamma spectroscopy samples recounted:

+ Soil samples – 27

Total number of samples in process or awaiting analysis:

+ Gamma spectroscopy samples – 692

Other:

+ Samples sent for offsite analysis – 44 (Tetra Tech)

Note: + Samples processed for Alameda: 0

- + Samples processed for HPS:
 - Shaw D1: 13 (gamma spectroscopy with 10 recounts)
 - Shaw PCB: 0
 - ERRG: 0

RSY2

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

Preliminary preparations for the systematic and biased sampling of excavated soil (ES) pile ES 348, Pad C 06: ongoing

Preliminary preparations for the towed array survey of ES pile ES 364, Pad C 25: ongoing

ES pile ES 301, Pad C 16; stockpile relocation to SB4 staging area (pad is clear): complete

Excavated soil (ES) pile ES 354, Pad C 10; stockpile relocation to SB3 (Shaw) staging area (pad is clear): complete

Receiving soil from Shaw IR 32 work area (WA) 34 as ES pile ES 366, Pad C 28 (pad is full): complete

Receiving soil from Shaw IR 32 WA 24 as ES pile ES 367, Pad C 29: ongoing

Receiving soil from Shaw IR 32 WA 24 as ES pile ES 368, Pad C 30: ongoing

RSY3:

No activities planned / conducted

RSY4:

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

ES pile ES 341, Pad E 18; stockpiling activities on pad: ongoing

RASO Notification, Approval and Survey/Sample Results

Forwarded analysis results from the offsite analytical laboratory specific to: "Strontium Sampling at Parcel G, ES Pile ES 311 (currently staged at RSY2, Pad C 28)"; requested concurrence to use entire pile as backfill material.

Forwarded analysis results from the offsite analytical laboratory specific to: "Strontium Sampling at Parcel G, ES Pile ES 314 (currently staged at RSY2, Pad C 31)"; requested concurrence to use entire pile as backfill material.

Forwarded analysis results from the onsite analytical laboratory specific to: "Systematic and Biased Sampling at Parcel G, ES Pile ES 358 (currently staged at RSY2, Pad C 21)"; requested concurrence to clear / stage entire pile pending receipt of strontium analysis results from the offsite analytical laboratory. Received concurrence specific to: "Systematic and Biased Sampling at Parcel E, ES Pile ES 342 (staged at RSY4, Pad E 17)"; will clear / stage entire pile pending receipt of strontium results from offsite analytical laboratory.

HPS LLRW Bin Activities

Empty bins staged for active use: 0

Bins receiving material in support of day's activities: 1 (Tetra Tech)

Bins receiving radiological assessment; resulting samples submitted to on-site analytical lab: 0 Prior week's bin count transferred to EMS for storage in the Parcel C bin storage area (reported every Monday): N/A

Support to Other Contracts / Organizations

Provided radiological field coverage for:

- + Shaw Environmental
- + Kleinfelder

Provided analytical laboratory services for:

+ Shaw Environmental

DAILY REPORT HPS RAD EMAC Basewide Status

Report Dates: January 7, 2011 RAC V

Overview

The HPS team continued with Basewide activities under CTO 04. Active work areas currently consist of Parcel B, Parcel C, Parcel D-1, Parcel E, Parcel G and Utility Corridor 3. Work performed, including any support provided to other HPS contractors, is detailed within the categories that follow:

HPS Site-wide Activities

Start of shift:

- + Restricted areas unlocked/established for daily activities: complete
- + Operational check prerequisites for project field instrumentation/machinery/equipment use: complete NRC license compliance:
- + Attendance for regularly scheduled radiological awareness brief (Monday's): N/A
- + Dosimetry assignments completed in support of radiologically controlled work tasks: 0
- + Routine radiological surveys: Daily 7; Weekly 5; Monthly 0
- + Radiological status surveys (equipment and material): incoming -2; outgoing -0
- + Radiological truck portal screening: Baseline scans (empty) 0; Full load scans 0
- + Radiological postings (upkeep and maintenance): ongoing

Radiological oversight, support, and field coverage (other contractors):

+ None requested / scheduled

End of shift:

- + Project field instrument/machinery/equipment accountability and inventory status: complete
- + Restricted areas secured for day: complete

Miscellaneous

- + Radiological integrity field verifications: complete.
- + Laboratory waste packages generated / transferred for disposal to RSY bins: 10

On-site Radiological Laboratory Activities

Laboratory technicians worked two shifts and supported document control and review, bin inventories, sample consolidation, and housekeeping activities. Phase out of current gamma spectroscopy hardware to newer upgrade continues; relocation to new onsite facility ongoing.

Gamma spectroscopy detectors available and operational for analytical analysis needs: 0

Protean units available and operational for analytical analysis needs: 1

Samples analyzed:

- + Protean swipe samples 40
- + Protean air monitoring media 21
- + Gamma spectroscopy samples 0

Total number of gamma spectroscopy samples recounted:

+ Soil samples - N/A

Total number of samples in process or awaiting analysis:

+ Gamma spectroscopy samples – 335

Other:

+ Samples sent for offsite analysis – 0

Note: + Samples processed for Alameda: 0

- + Samples processed for HPS:
 - Shaw D1: 0
 - Shaw PCB: 0
 - ERRG: 0

RSY2

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

Receiving soil from work area (WA) 30 (Shaw) as excavated soil (ES) pile ES 374, Pad C 12: ongoing

RSY3

Radiological monitoring/control point support (personnel/area/equipment/material egress/air monitoring). Receiving soil from WA 33 (Shaw) as ES pile ES 375, Pad D 06: ongoing

RSY4

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

Receiving soil from WA 33 as ES pile ES 380, Pad E 11: ongoing

HPS LLRW Bin Activities

Empty bins staged for active use: 4 (Tetra Tech)

Bins receiving material in support of day's activities: 6 (Tetra Tech)

Bins receiving radiological assessment; resulting samples submitted to on-site analytical lab: 0

Prior week's bin transfer total to EMS bin storage area in Parcel C (reported every Monday): 3

Support to Other Contracts / Organizations

Provided radiological field coverage for:

+ N/A

Provided analytical laboratory services for:

+ N/A



Report Date: January 7, 2011	RAD EMAC – CTO 002
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Overview

The HPS Team continued field activities in Work Area #33. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPS Team excavated approximately 300 cubic yards of soil from Work Area #33 and transferred the material to both RSY3 and RSY4 pending survey activities. Excavation activities were performed for the following trench segments:

-	02-C33-00-1S	20 linear feet completed
	02-C33-00-1T	20 linear feet completed
4	02-C33-00-1V	28 linear feet completed
-	02-C33-00-1W	115 linear feet completed
-	02-C33-00-1X	25 linear feet completed
-	02-C33-00-1Z	10 linear feet completed.

A total of 218 linear feet of trench (including excavated soil, pipe, and manholes) identified on the design drawing was completed by the HPS Team.

Manholes MH1113, and MH1114 along with pipe excavated from trench segments 02-C33-00-1S, 02-C33-00-1T, 02-C33-00-1V, 02-C33-00-1W, 02-C33-00-1X, and 02-C33-00-1Z were placed on plastic pending further activities.

Two sediment samples were collected from Manholes MH1113 (MH0002) and MH1114 (MH0003) by the HPS Team and submitted to the on-site laboratory for analysis.

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: January 7, 2011 EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #20, and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team remediated approximately 65 cubic yards of soil from Survey Unit 21 and placed the material in LLRW bins BKRU026148, GFLU001153G6, GFLU001164G12, GFLU001172G15, and GFLU001203 for disposal.

The HPS Team performed Class 1 survey activities in Survey Units 3, 5, 7, 8, 9, 13, 14, and 20. A total of 18 characterization gamma static measurements were logged. The maximum gamma static measurement logged was 7,870 cpm. In addition, 18 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

The HPS Team issued drawings to identify locations for post-remediation sample collection in Survey Units 6 and 8.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

Backfill activities were continued by the HPS Team in Trench Unit No. 184.

Standing water in UC3 active trenches continued to be pumped in preparation for FSS activities.

A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

DAILY REPORT HPS RAD EMAC Basewide Status

Report Dates: January 20, 2011 RAD EMAC – CTO 04

Overview

The HPS team continued with Basewide activities under CTO 04. Active work areas currently consist of Parcel B, Parcel C, Parcel D-1, Parcel E, Parcel G and Utility Corridor 3. Work performed, including any support provided to other HPS contractors, is detailed within the categories that follow:

HPS Site-wide Activities

Start of shift:

- + Restricted areas unlocked/established for daily activities: complete
- + Operational check prerequisites for project field instrumentation/machinery/equipment use: complete NRC license compliance:
- + Attendance for regularly scheduled radiological awareness brief (Monday's):N/A
- + Attendance for radiological awareness brief escorted visitor (short term/task specific): 0
- + Dosimetry assignments completed in support of radiologically controlled work tasks: 0
- + Routine radiological surveys: Daily 9; Weekly 3; Monthly -1; Monthly RMA Inventory performed.
- + Radiological status surveys (equipment and material): incoming -1; outgoing -0
- + Radiological truck portal screening: Baseline scans (empty) 0; Full load scans 0
- + Radiological postings (upkeep and maintenance): ongoing

Radiological oversight, support, and field coverage (other contractors):

+ CE2/Kleinfelder: Basewide groundwater sampling project.

End of shift:

- + Project field instrument/machinery/equipment accountability and inventory status: complete
- + Restricted areas secured for day: complete

Miscellaneous

- + Radiological integrity field verifications: complete.
- + Laboratory waste packages generated / transferred for disposal to RSY bins: 0

On-site Radiological Laboratory Activities

Laboratory technicians worked two shifts and supported document control and review, bin inventories, and housekeeping activities. Phase out of current gamma spectroscopy hardware to newer upgrade continues; relocation to new onsite facility ongoing.

Gamma spectroscopy detectors available and operational for analytical analysis needs: 5

Protean units available and operational for analytical analysis needs: 1

Samples analyzed:

- + Protean swipe samples 70
- + Protean air monitoring media -11
- + Gamma spectroscopy samples 42

Total number of gamma spectroscopy samples recounted:

+ Soil samples - 0

Total number of samples in process or awaiting analysis:

+ Gamma spectroscopy samples - 557

Other:

+ Samples sent for offsite analysis – 14 (Tetra Tech)

Note: + Samples processed for Alameda: 0

- + Samples processed for HPS:
 - Shaw PD1: 33
 - Shaw PCB:
 - 03SCR-S0006: 6
 - 03SCR-S0007: 3

RSY2

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

Excavated Soil (ES) pile #394, Pad C20-Receiving soil from work area (WA)/24 (Shaw), 3 truckloads today.

ES pile #366, Pad C28-Ready for towed array.

ES pile #371, Pad C33-Towed array completed.

RSY3

No activities planned or conducted today.

RSY4

Radiological monitoring/control point support (personnel/area/equipment/material egress/decon pad/air monitoring).

ES pile #395, Pad E07-Receiving soil from WA/33, 9 truckloads.

ES pile #392, Pad E17-Receiving soil from WA/33, 11 truckloads today.

ES pile #391, Pad E18-Receiving soil from WA/33, 11 truckloads today, pad is full.

HPS LLRW Bin Activities

Empty bins staged for active use: 0 (Tetra Tech)

Bins receiving material in support of day's activities: 3 (Tetra Tech)

Bins receiving radiological assessment; resulting samples submitted to on-site analytical lab: 0

Prior week's bin transfer total to EMS bin storage area in Parcel C (reported every Monday): N/A

Support to Other Contracts / Organizations

Provided radiological field coverage for:

+ CE2/Kleinfelder: Basewide groundwater sampling project.

Provided analytical laboratory services for:

+ N/A



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Report Date: January 20, 2011	RAD EMAC – CTO 002
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Overview

The HPS Team continued field activities in Buildings 203, 214 and 271 and Work Area #33. Details of the work activities performed are provided in the sections below.

Building 203

The HPS Team and Sterling Environmental performed a pre-asbestos abatement walkthrough and on-site equipment inventory.

Building 214

The main entryway was relocated to the east-side of Building 214 to facilitate sewer and storm drain removal activities along Lockwood Street.

Building 271

The drying oven, which was radiologically cleared in Material and Equipment Survey #HPS-ME-B271-001, was transferred by the HPS Team to Building 413 for storage.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPS Team excavated approximately 372 cubic yards of soil from Work Area #33 and transferred the material to RSY4 pending survey activities. Excavation activities were performed for the following trench segments:

- 02-C33-00-2Q	 02-C33-00-2S 02-C33-00-8K 02-C33-28-1W 02-C33-28-1X
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A total of 132 linear feet of trench (including excavated soil, pipe and manholes) identified on the design drawings and 50 linear feet not identified on the design drawings was completed by the HPS Team.

Manholes MH1052 and MH1060 along with pipe excavated from trench segments 02-C33-00-2Q, -2R, -2S, -8K; 02-C33-28-1W, -1X, -1Y, and -8B were placed on plastic pending disposal activities.

Two sediment samples were collected from Manholes MH1052 (MH0010) and MH1060 (MH0011) by the HPS Team and submitted to the on-site laboratory for analysis.

Asphalt removal activities were continued by the HPS Team in Work Area #33 to facilitate upcoming fieldwork.

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: January 20, 2011 EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team remediated approximately 24 cubic yards of soil from within Class 1 Survey Unit 5 and placed the material in LLRW bins GFLU001236G5 and GFLU001262G15 for disposal by the DON's radiological waste contractor.

The HPS Team performed Class 1 survey activities in Survey Unit 3. A total of 6 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 90 cpm for the FIDLER and 5,444 cpm. In addition, three post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 5. A total of 8 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 85 cpm for the FIDLER and 6,166 cpm. In addition, four post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 4 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 105 cpm for the FIDLER and 7,609 cpm. In addition, two post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 13. A total of 4 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 86 cpm for the FIDLER and 6,079 cpm. In addition, two post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 14. A total of 4 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 183 cpm for the FIDLER and 5,337 cpm. In addition, two

post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed Class 1 survey activities in Survey Unit 15. A total of 18 post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 193 cpm for the FIDLER and 5,822 cpm. In addition, nine post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

Compaction testing was continued on recently backfilled areas of Trench Units No. 175 and 182. Based on the test results, backfill activities were completed in Trench Unit No. 175, but continued in Trench Unit No. 182.

The HPS Team continued pumping standing water from active trench units in UC3.

A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: February 16, 2011 RAD EMAC – CTO 002

Overview

The HPS Team continued field activities in Buildings 203 and 271, and Work Area #33. Field activities were limited due to inclement weather. Details of the work activities performed are provided in the sections below.

Building 203

Sterling Environmental and the HPS Team continued asbestos abatement activities on furnace boilers and flooring. Approximately 40 cubic yards of firebrick was generated during the abatement activities and placed in LLRW bins DB1104D4, DB1439 and DB1443 for disposal.

Building 271

The HPS Team performed Class 1 survey activities in Survey Unit 6. A total of 228 gamma scan readings and 20 static measurements were logged with no gamma activity identified above the 3-sigma investigation level of 8,809 cpm. Twenty alpha/beta static measurements also were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. In addition, 20 swipe samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data

Parcel C Storm Drain and Sanitary Sewer Removal Activities

Excavation of trench segments 02-C33-28-8E, -8G, and -8H were terminated due to their proximity to Building 251. A total of six swipe samples were collected from the piping remaining in place by the HPS Team and submitted to the on-site laboratory for analysis.

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: February 16, 2011	TMAC CTO 02
Report Date. Tebruary 10, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Field activities were limited due to inclement weather. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team remediated approximately 39 cubic yards of soil from Survey Units 5 and 8 and placed the material in LLRW bins BFLU000377G14, BKRU026115G7 and GFLU001104G14 for disposal by the DON's radiological waste contractor.

The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of four characterization gamma static measurements were logged. The maximum measurements logged were 57 cpm (FIDLER) and 4,826 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

The HPS Team continued post-paving asphalt cleaning activities and continued preparation for road striping and traffic sign installation.

Additional storm water drainage was installed near Building 815 in UC3.

A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: March 8, 2011	RAD EMAC – CTO 002

Overview

The HPS Team continued field activities in Buildings 203, 214, and 241 and Work Areas #33 and #35. Details of the work activities performed are provided in the sections below.

Building 203

Sterling Environmental and the HPS Team performed additional asbestos abatement activities during the dismantlement of furnace boilers and the surrounding metal framework. A total of 3,360 feet of 3-inch-diameter boiler conduit debris was generated during the abatement activities and placed in LLRW bins BKRU026457, GFLU001164G13, GFLU001200G14, and GFLU001215G13 for disposal by the DON's radiological waste contractor.

Building 214

The HPS Team performed Class 1 survey activities in Survey Unit 1. A total of 496 alpha/beta scan readings were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. The RSO is in the process of reviewing these data.

Building 241

Pre-survey activities were performed by the HPS Team including the collection of alpha, beta, and gamma static measurements on assorted concrete and wood surfaces to be utilized as background references.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPS Team excavated approximately 144 cubic yards of soil from Work Areas #33 and #35 and transferred the material to RSY4 pending survey activities. Excavation activities were performed for the following trench segments:

-	02-C33-00-1B	35 linear feet completed
-	02-C35-00-1A	57 linear feet completed
-	02-C35-00-1B	22 linear feet completed
-	02-C35-00-1C	4 linear feet completed
-	02-C35-00-1D	31 linear feet completed

02-C35-00-1E

44 linear feet completed.

A total of 193 linear feet of trench (including excavated soil, pipes and a manhole) identified on the design drawings was completed by the HPS Team.

Manhole MH1119 and pipes excavated from trench segments 02-C33-00-1B, 02-C35-00-1A, and 02-C35-00-1C were placed on plastic pending further activities.

The HPS Team investigated trench segments 02-C35-00-1B, -1D, and -1E for the presence of pipe. Although depicted in the design drawing, no pipe was found during these investigations.

The HPS Team provided the RASO with analytical results for the sediment sample collected from Manhole MH1104 (02-PCMH1104-019-01). No activity above the release criteria was identified.

The HPS Team provided the RASO with analytical results of the sediment sample collected from Manhole MH1105 (02-PCMH1105-018-01). This manhole will be disposed as LLRW due to ²²⁶Ra activity (2.4670 pCi/g) above the release criteria.

In preparation for trench excavations, Work Area #33 asphalt was removed. In addition, rail lines were removed and cut to size by the HPS Team. The generated debris was staged pending transfer to the recycling stockpiles.

Work Area #33 perimeter fencing was reconfigured to facilitate upcoming excavation activities.

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: March 8, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 81 cpm (FIDLER) and 8,136 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 202 cpm (FIDLER) and 7,675 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team provided the RASO with on-site analytical results for the post-remediation samples collected from Survey Unit 21. Because no activity above the release criteria was identified, systematic sample collection will be performed.

The HPS Team issued drawings to identify systematic sample collection locations in Survey Unit 21.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



DAILY STATUS REPORT

Parcel E and Building 500 Series Area Storm Drain and Sanitary Sewer Removal Action

Report Date: March 8, 2011 RMAC - CTO 07

Overview

The HPS Team continued field activities for the Parcel E Building 500 Series area and Work Area #36. Details of the activities performed are provided in the sections below.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

The HPS Team resumed radiological surface scans, soil grading, and vegetation removal in the northeast corner of Work Area #36 in preparation for upcoming survey activities.

A variety of housekeeping activities were performed throughout the Building 500 Series area by the HPS Team.

Issues/Items Pending Action



Report Date: May 5, 2011	RAD EMAC – CTO 002

Overview

The HPS Team continued field activities in Building 203 and Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Building 203

The HPS Team and Sterling resumed asbestos abatement activities in the former office workspaces and restrooms.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPS Team excavated approximately 84 cubic yards of soil from Work Areas #33 and #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

- 02-C33-28-3U

12 linear feet completed

- 02-C34-28-1X

2 linear feet completed

- 02-C34-28-1Z

32 linear feet completed

A total of 46 linear feet of trench (including excavated soil, pipes, and manholes) identified on the design drawings was completed by the HPS Team.

Manholes MH1022, MH1042, MH1110, MH1134, and MH1137 and pipes excavated from trench segments 02-C33-28-3U, 02-C34-28-1X, and 02-C34-28-1Z were placed on plastic pending further activities.

A total of two sediment samples were collected from excavated Manholes MH1022 (MH0050) and MH1134 (MH0051) by the HPS Team and submitted to the on-site laboratory for analysis.

The HPS Team completed backfilling activities for Trench Unit No. 191.

The HPS Team initiated backfilling activities for Trench Unit No. 193.

The HPS Team provided the RASO with analytical results for the sediment sample collected from a pipe section excavated from trench segment 02-C34-28-2C (PI0005); No activity above the release criteria was identified.

The HPS Team issued Figures 1-1/3-1 for inclusion in the Internal Draft SUPR for Trench Survey Units No. 196, 202, and 203.

Catch basins and associated piping was installed in Work Area #35 as a component of Trench Unit No. 193.

A variety of housekeeping activities were performed throughout Parcel C by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: May 5, 2011 EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

Approximately 31 cubic yards of soil was remediated from Survey Units 9 and 17 by the HPS Team and placed in LLRW bins GFLU001016G14, GFLU001221G8, GFLU001237G16, MHFU001109G15, and MHFU001653G12.

Following remediation, the HPS Team logged eight post-remediation gamma static measurements in Survey Unit 9. The maximum measurements logged were 83 cpm (FIDLER) and 6,694 cpm. In addition, four soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.

The HPS Team issued drawings to identify locations for investigative sample collection in Survey Unit 19.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

The HPS Team resumed site restoration activities for Parcel UC3 including paving along Crisp Road.

A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



DAILY PROGRESS REPORT Hunters Point Shipyard Basewide Radiological Support

Report Date: May 5, 2011 RMAC – CTO 004

Overview

The HPS Team continued radiological Basewide functions including support activities, radiological screening yard (RSY) processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

The HPS Team performed the following RSY2 processing activities:

Completed towed array of ES Unit 0498.

No field activities were conducted at RSY3.

The HPS Team performed the following RSY4 processing activities:

Received a total of 7 truckloads of material for processing.

Completed towed array of ES Units 0488 and 0491.

Collected biased and systematic samples at ES Units 0487 and 0490.

Collected systematic samples at ES Unit 0091.

With RASO concurrence, cleared ES Units 0474, 0392, and 0460 pending offsite analytical results.

The HPS Team continued radiological monitoring and control activities for RSY2, RSY3, and RSY4 including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring.

The HPS Team submitted the offsite data for RASO evaluation for concurrence to dispose of ES Units 0339, 0373, 0382, and 0403 as non-LLRW.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate 12 gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 112

Samples analyzed by gamma spectroscopy: 110

Gamma spectroscopy samples recounted: 5

Protean swipe samples counted: 103

Protean air samples counted: 15

A total of 67 samples are awaiting gamma spectroscopy analysis in the on-site laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 5, 2011 RMAC – CTO 07

Overview

The HPS Team continued field activities for Building 521 and the Building 500 Series Area. Details of the activities performed are provided in the sections below.

Building 521

The HPS Team and Sterling Environmental continued asbestos abatement activities on the metal boiler framing.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout the Building 500 Series area by the HPS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report Task-specific Plans



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: June 8, 2011 RAD EMAC – CTO 002
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Overview

The HPNS Team continued field activities in Building 272 and Work Areas #31 and #33. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

The HPNS Team excavated approximately 105 cubic yards of soil from Work Area #33 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	02-272-00 - 8A	10 linear feet completed
-	02-272-00-8H	60 linear feet completed
	02-272-00-8I	4 linear feet completed
-	02-272-00-8J	4 linear feet completed
-	02-272-00-8K	4 linear feet completed

A total of 82 linear feet of trench (including excavated soil and pipes) not identified on the design drawings was completed by the HPS Team.

Pipes excavated from trench segments 02-272-00-8A, -8H, -8I, -8J and -8K were placed on plastic pending further activities

The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 205. No activity above the release criteria was identified.

The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 209.

Pre-survey activities including asphalt removal and staging were performed by the HPNS Team in Work Area #33

A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

D 4 D 4 T 0 0011	
Report Date: June 8, 2011	EMAC – CTO 03
	ENAC - C10 03

Overview

The HPNS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

The HPNS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 88 cpm (FIDLER) and 6,758 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data

The HPNS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 180 cpm (FIDLER) and 6,993 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Base-wide Radiological Support

Report Date: June 08, 2011	DIALC CEC OL
Report Date. June 08, 2011	RMAC – CTO 004

Overview

The HPNS Team continued radiological base-wide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

A total of six truckloads of material was received at RSY3 for processing.

A total of three truckloads of material was received at RSY4 for processing.

The HPNS Team continued radiological monitoring and control activities for RSY2, RSY3, and RSY4 including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring.

On-Site and Off-Site Laboratories

On-site laboratory staff continued to operate 12 gamma spectroscopy detectors and the Protean unit. The following activities were completed:

Soil samples received for gamma spectroscopy analysis: 212

Swipe samples received for Protean counts: 132

Air samples received: 14

Samples analyzed by gamma spectroscopy: 94

Gamma spectroscopy samples recounted: 14

Protean swipe samples counted: 60

Protean air samples counted: 13

A total of 415 samples are awaiting gamma spectroscopy analysis in the on-site laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Daniel D. J. T. O. 2014	
Report Date: June 8, 2011	RMAC – CTO 07
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Overview

The HPNS Team continued field activities for the Buildings 503 Site, Building 521, and the Building 500 Series Area. Details of the activities performed are provided in the sections below.

Building 503 Site

The HPNS Team performed gamma scan surveys utilizing the towed array over Survey Unit 6.

The HPNS Team performed Class 1 survey activities for the Building 503 site as follows:

Survey Unit 2 A total of 20 gamma static measurements were logged. The maximum measurement logged was at 5,340 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 3 !A total of 20 gamma static measurements were logged. The maximum measurement logged was at 6,188 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 4 !A total of 20 gamma static measurements were logged. The maximum measurement logged was at 5,174 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 5 !A total of 20 gamma static measurements were logged. The maximum measurement logged was at 5,859 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

Survey Unit 6 !A total of 20 gamma static measurements were logged. The maximum measurement logged was at 6,376 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey results for Survey Units 2 through 6.

Building 521

Residual fuel oil from pipes inside building floor channels was drained into drums by the HPNS Team. The drained oil pipes were removed and staged pending survey activities.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

A total of six truckloads of vegetation generated during Work Area #36 soil grading and other activities were manually scanned followed by screening through the HPNS portal monitor with no alarms.

Surveyed and released concrete debris (Survey #HPS-A-500SA-005) was transferred to the recycling stockpiles.

A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report Task-specific Plans

Arian	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	OI	Collected	Technician
707	9	1	Systematic	03707-S0009-F001-01	22-Nov-10	Jeff Rolfe
707	9	2	Systematic	03707-S0009-F002-01	22-Nov-10	Jeff Roife
707	9	3	Systematic	03707-S0009-F003-01	22-Nov-10	Jeff Rolfe
707	9	4	Systematic	03707-S0009-F004-01	22-Nov-10	Jeff Rolfe
707	9	5	Systematic	03707-S0009-F005-01	22-Nov-10	Jeff Rolfe
707	9	6	Systematic	03707-S0009-F006-01	22-Nov-10	Jeff Rolfe
707	9	7	Systematic	03707-S0009-F007-01	22-Nov-10	Jeff Rolfe
707	9	8	Systematic	03707-S0009-F008-01	22-Nov-10	Jeff Rolfe
707	9	9	Systematic	03707-S0009-F009-01	22-Nov-10	Jeff Rolfe
707	9	10	Systematic	03707-S0009-F010-01	22-Nov-10	Jeff Rolfe
707	9	11	Systematic	03707-S0009-F011-01	22-Nov-10	Jeff Rolfe
707	9	12	Systematic	03707-S0009-F012-01	22-Nov-10	Jeff Rolfe
707	9	13	Systematic	03707-S0009-F013-01	22-Nov-10	· Jeff Rolfe
707	9	14	Systematic	03707-S0009-F014-01	22-Nov-10	Jeff Rolfe
707	9	15	Systematic	03707-S0009-F015-01	22-Nov-10	Jeff Rolfe
707	9	16	Systematic	03707-S0009-F016-01	22-Nov-10	Jeff Rolfe
707	9	17	Systematic	03707-S0009-F017-01	22-Nov-10	Jeff Rolfe
707	9	. 18	Systematic	03707-S0009-F018-01	22-Nov-10	Jeff Rolfe
707	9	19	Systematic	03707-S0009-F019-01	22-Nov-10	Jeff Rolfe
707	9	20	Systematic	03707-S0009-F020-01	22-Nov-10	Jeff Rolfe
707	9	21	Biased	03707-S0009-F021-01	30-Nov-10	Jeff Rolfe
707	9	22	Biased	03707-S0009-F022-01	30-Nov-10	Jeff Rolfe
707	9	23	Biased	03707-S0009-F023-01	30-Nov-10	Jeff Rolfe
707	9	24	Biased	03707-S0009-F024-01	30-Nov-10	Jeff Rolfe
707	9	25	Biased	03707-S0009-F025-01	30-Nov-10	Jeff Rolfe
707 707	9	<u>26</u> 27	Biased Biased	03707-S0009-F026-01	30-Nov-10	Jeff Rolfe
707	9	28	Characterization	03707-S0009-F027-01 03707-S0009-F028-01	30-Nov-10	Jeff Rolfe Rick Zahensky
707	9	29	Characterization	03707-S0009-F029-01	07-Jan-11 07-Jan-11	
707	9	30	Characterization	03707-S0009-F030-01	07-Jan-11 07-Jan-11	Rick Zahensky
707	9	31	Post-Remediation	03707-S0009-F030-01	20-Jan-11	Rick Zahensky Anthony Smith
707	9	32	Post-Remediation	03707-S0009-F032-01	20-Jan-11	Anthony Smith
707	9	33	Post-Remediation	03707-S0009-F033-01	16-Feb-11	Rick Zahensky
707	9	34	Post-Remediation	03707-S0009-F034-01	16-Feb-11	Rick Zahensky
707	9	35	Systematic	03707-S0009-F035-01	08-Mar-11	Rick Zahensky
707	9	36	Systematic	03707-S0009-F036-01	08-Mar-11	Rick Zahensky
707	9	37	Systematic	03707-S0009-F037-01	08-Mar-11	Rick Zahensky
707	9	38	Systematic	03707-S0009-F038-01	08-Mar-11	Rick Zahensky
707	9	39	Systematic	03707-S0009-F039-01	08-Mar-11	Rick Zahensky
707	9	40	Systematic	03707-S0009-F040-01	08-Mar-11	Rick Zahensky
707	9	41	Systematic	03707-S0009-F041-01	08-Mar-11	Rick Zahensky
707	9	42	Systematic	03707-S0009-F042-01	08-Mar-11	Rick Zahensky
707	9	43	Systematic	03707-S0009-F043-01	08-Mar-11	Rick Zahensky
707	9	44	Systematic	03707-S0009-F044-01	08-Mar-11	Rick Zahensky
707	9	45	Systematic	03707-S0009-F045-01	08-Mar-11	Rick Zahensky
707	9	46	Systematic	03707-S0009-F046-01	08-Mar-11	Rick Zahensky
707	9	47	Systematic	03707-S0009-F047-01	08-Mar-11	Rick Zahensky
707	9	48	Systematic	03707-S0009-F048-01	08-Mar-11	Rick Zahensky
707	9	49	Systematic	03707-S0009-F049-01	08-Mar-11	Rick Zahensky
707	9	50	Systematic	03707-S0009-F050-01	08-Mar-11	Rick Zahensky
707	9	51	Systematic	03707-S0009-F051-01	08-Mar-11	Rick Zahensky
707	9	52	Systematic	03707-S0009-F052-01	08-Mar-11	Rick Zahensky
707	9	53	Systematic	03707-S0009-F053-01	08-Mar-11	Rick Zahensky

On-Site Laboratory (pCi/g)							
K-40	Ra-226	Cs-137	Bi-214	Pb-214			
15.825	0.79058	0.090392	0.66971	0.48601			
10.906	0.60437	0.072327	0.39988	0.38924			
14.752	0.19637	0.21316	0.48314	0.53697			
20.035	0.83018	-0.0059882	0.99726	0.63873			
8.7188	-0.074708	0.0060262	0.4103	0.4576			
19.222	0.8318	0.024056	0.65834	0.54361			
15.248	0.75108	0.022489	0.63814	0.49596			
10.18	0.40552	0.091476	0.44765	0.36308			
10.884	0.38056	0.015119	0.52188	0.35568			
14.501	1.08	0.038536	0.72925	0.59949			
12.471	0.30632	0.17542	0.41799	0.34118			
11.666	0.70081	-0.0055894	0.42054	0.38589			
15.48	0.72217	-0.013376	0.6705	0.71667			
16.543	-0.21	0.021763	0.7285	0.81491			
10.246	0.45378	0.088195	0.30406	0.32252			
12.361	-0.32205	0.02658	0.46394	0.44226			
21.735	0.9406	0.045461	0.79742	0.86345			
27.149	0.11558	0.024619	0.83868	0.80633			
16.787	0.46849	0.024241	0.72761	0.87069			
15.538	0.9379	-0.0057145	0.63528	0.69002			
18.669	1.0514	0.0042414	0.99396	0.9429			
20.789	0.41153	0.0073687	0.79471	0.69483			
22.467	1.4286	0.01483	0.755	0.70264			
19.648	0.32767	0.034626	0.59908	0.59955			
17.57	0.3929	0.016687	0.59948	0.56172			
20.393	0.97089	0.061099	0.67943	0.68352			
13.861	0.98948	0.021291	0.46325	0.50986			
13.64	0.5886	0.087	0.544	0.5539			
12.2	0.6208	0.02073	0.3816	0.4148			
23.9	1.171	-0.004451	0.8318	0.8927			
20.02	0.596	0.0005613	0.7344	0.8253			
10.72	0.6733	-0.0004529	0.5496	0.6207			
25.57	0.5911	-0.01018	0.7626	0.7789			
24.24	0.9391	0.0002108	0.6381	0.6045			
10.5	0.6161	0.009099	0.3395	0.4877			
10.03	0.8014	0	0.3697	0.4256			
9.848	0.3778	0.02176	0.2651	0.3141			
11.94	0.3058	0.009321	0.2717	0.3578			
11.21	0.6075	0.0149	0.3989	0.3861			
10.05	0.8666	0.0124	0.4057	0.3671			
10.77	0.8525	. 0	0.3994	0.4902			
11.46	0.1428	-0.001279	0.4663	0.393			
9.663	0.7324	-0.001499	0.4177	0.4028			
9.468	0.6251	-0.002792	0.2912	0.2965			
11.09	0.4159	-0.0004437	0.3503	0.3351			
8.909	0.2633	0.01277	0.1766	0.2859			
11.27	0.6715	-0.000487	0.3509	0.3854			
10.83	1.012	0.001519	0.4029	0.4358			
10.2	0.5191	0.01228	0.3132	0.4318			
11.22	0.31	-0.006724	0.3508	0.4601			
10.55	0.5601	0	0.3454	0.4317			
9.506	0.607	0.002631	0.3769	0.5008			
11.51	0.5865	0.004301	0.4425	0.3883			

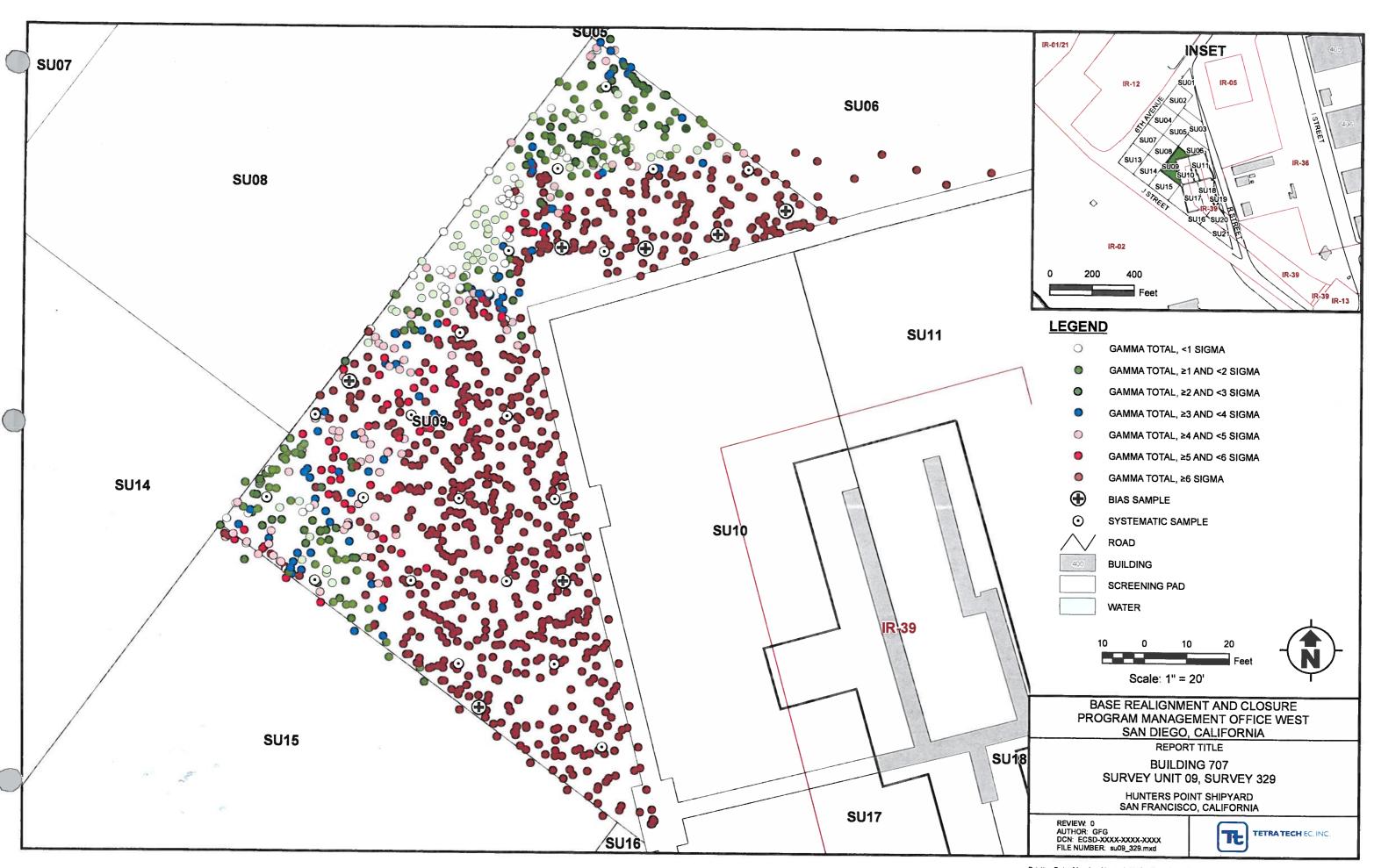
K-40	Ra-226	Cs-137	Bi-214	Pb-214
10.2	0.391	0.00453	0.391	0.53
10.2 9.27	0.391 0.499	0.00453 0.0278	0.391 0.499	0.53 0.482
9.27 10.6 9.5	0.499 0.499 0.505	0.0278 0 0.015	0.499 0.499 0.505	0.482 0.571
9.27 10.6 9.5 7.06	0.499 0.499 0.505 0.39	0.0278 0 0.015 -0.00813	0.499 0.499 0.505 0.39	0.482 0.571 0.497 0.555
9.27 10.6 9.5 7.06 7.3	0.499 0.499 0.505 0.39 0.364	0.0278 0 0.015 -0.00813 -0.0162	0.499 0.499 0.505 0.39 0.364	0.482 0.571 0.497 0.555 0.423
9.27 10.6 9.5 7.06 7.3 10.5	0.499 0.499 0.505 0.39 0.364 0.634	0.0278 0 0.015 -0.00813 -0.0162 -0.00525	0.499 0.499 0.505 0.39 0.364 0.634	0.482 0.571 0.497 0.555 0.423 0.65
9.27 10.6 9.5 7.06 7.3 10.5	0.499 0.499 0.505 0.39 0.364 0.634 0.573	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177	0.499 0.499 0.505 0.39 0.364 0.634 0.573	0.482 0.571 0.497 0.555 0.423 0.65 0.696
9.27 10.6 9.5 7.06 7.3 10.5 10	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638	0.482 0.571 0.497 0.555 0.423 0.65 0.696
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2	0.499 0.499 0.505 0.39 0.364 0.634 0.638 0.57 0.421	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87 9.91	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999 -0.0154	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791 0.443 0.635
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87 9.91	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999 -0.0154 -0.00712	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791 0.443 0.635
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87 9.91 9.2 9.1	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999 -0.0154 -0.00712 0	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791 0.443 0.635 0.553
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87 9.91 9.2 9.1	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512 0.533	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999 -0.0154 -0.00712 0 0.00959	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512 0.533	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791 0.443 0.635 0.553 0.526
9.27 10.6 9.5 7.06 7.3 10.5 10 9.2 7.36 10.2 9.87 9.91 9.2 9.1	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512	0.0278 0 0.015 -0.00813 -0.0162 -0.00525 -0.0177 -0.000506 -0.031 0.0224 0.00999 -0.0154 -0.00712 0	0.499 0.499 0.505 0.39 0.364 0.634 0.573 0.638 0.57 0.421 0.401 0.48 0.59 0.512	0.482 0.571 0.497 0.555 0.423 0.65 0.696 0.625 0.424 0.791 0.443 0.635 0.553

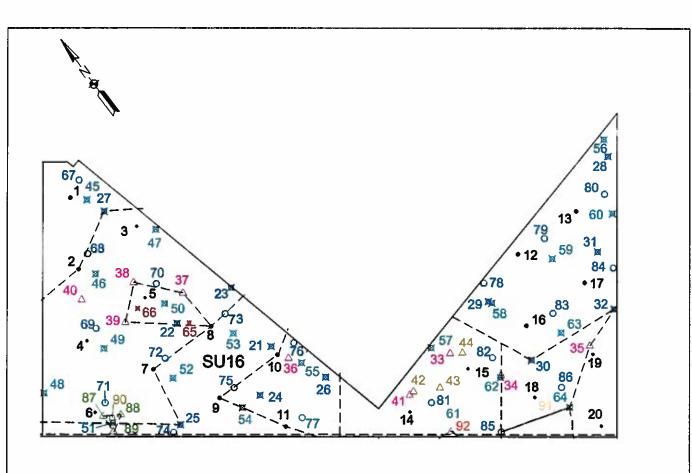
	Survey	Comple	Cample	Comple		2000
Area		Sample	Sample	Sample	Date	COC Radiological
	Unit	Point	Туре	ID	Collected	Technician
707	9	54	Systematic	03707-S0009-F054-01	08-Mar-11	Rick Zahensky
707	9	55	Sr90 Remediation	03707-S0009-F055-01	05-May-11	Rick Zahensky
707	9	56	Sr90 Remediation	03707-S0009-F056-01	05-May-11	Rick Zahensky
707	9	57	Sr90 Remediation	03707-S0009-F057-01	05-May-11	Rick Zahensky
707	9	58	Sr90 Remediation	03707-S0009-F058-01	05-May-11	Rick Zahensky
707	9	59	Systematic	03707-S0009-F059-01	08-Jun-11	Jeff Roife
707	9	60	Systematic	03707-S0009-F060-01	08-Jun-11	Jeff Rolfe
707	9	61	Systematic	03707-S0009-F061-01	08-Jun-11	Jeff Rolfe
707	9	62	Systematic	03707-S0009-F062-01	08-Jun-11	Jeff Rolfe
707	9	63	Systematic	03707-S0009-F063-01	08-Jun-11	Jeff Rolfe
707	9	64	Systematic	03707-S0009-F064-01	08-Jun-11	Jeff Rolfe
707	9	65	Systematic	03707-S0009-F065-01	08-Jun-11	Jeff Roife
707	9	66	Systematic	03707-S0009-F066-01	08-Jun-11	Jeff Rolfe
707	9	67	Systematic	U3707-S0009-F067-01	08-Jun-11	Jeff Rolfe
707	9	68	Systematic	U3/U7-SCC09-F068-01	08-Jun-11	Jeff Rolfe
707	9	69	Systematic	03707-S0009-F069-C1	08-Jun-11	Jeff Rolfe
707	9	70	Systematic	03707-S0009-F070-01	08-Jun-11	Jeff Rolfe
707	9	71	Systematic	03707-S0009-F071-01	08-Jun-11	Jeff Rolfe
707	9	72	Systematic	03707-S0009-F072-01	08-Jun-11	Jeff Rolfe
707	9	73	Systematic	03707-S0009-F073-01	08-Jun-11	Jeff Rolfe
707	9	74	Systematic	03707-S0009-F074-01	08-Jun-11	Jeff Rolfe
707	9	75	Systematic	03707-S0009-F075-01	08-Jun-11	Jeff Rolfe
707	9	76	Systematic	03707-S0009-F076-01	08-Jun-11	Jeff Rolfe
707	9	77	Systematic	03707-S0009-F077-01	08-Jun-11	Jeff Rolfe
707	9	78	Systematic	03707-S0009-F078-01	08-Jun-11	Jeff Rolfe

	On-	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
9.446	0.1302	0	0.4124	0.4137
0.2748	0.21	0.00849	-0.008036	-0.03504
0.1427	0.3812	0.0003483	0.02075	0.003156
0.4596	0.2062	0	-0.009608	0.003167
0.4908	0.1793	0.004782	0.04719	-0.00925
1.376	0	0	0.04795	0.001898
0.9757	0.145	0.0002872	-0.01059	0.04842
0.4746	0.09491	0.0004212	0.03414	-0.00957
0.8478	-0.008074	0.00087	0.003286	0.009988
1.202	0.01622	-0.001686	-0.002968	0.02754
1.027	0.1761	0	0.04829	0.03009
1.462	-0.04433	-0.00009218	0.03846	0.01206
0.6561	0.03258	0.00008814	0.04474	0.03558
0.8179	0.07481	0.002885	-0.009769	0.01084
0.5939	-0.1118	0	-0.01725	0.02058
1.329	0.2135	0	-0.01831	0.02499
1.048	-0.05275	0.00467	-0.019	0.08097
0.7567	-0.1179	0.01064	-0.005697	0.00141
0.6125	0.0171	-0.0006382	0.01198	0.002024
0.5315	0.1663	0.007838	-0.01427	0.009163
	0.06527	0.02016	0.02616	-0.00149

Off-Site Laboratory (pCi/g)							
K-40	Ra-226	Cs-137	Bi-214	Pb-214			
10.5	0.555	0.00193	0.555	0.546			
0.381	0.0564	0.00671	0.0564	0.174			
0.441	0.0213	0.0164	0.0213	-0.0161			
0.706	-0.00548	0.00996	-0.00548	0.0138			
1	0.0783	0.00793	0.0783	0.174			
1.27	0.0611	0	0.0611	0.104			
0.305	-0.00512	0.0000896	-0.00512	0.2			
1.22	-0.0104	0	-0.0104	0.0655			
0.679	0.0334	0.00248	0.0334	0.0455			
0.483	0.015	0	0.015	0.0279			
0.59	-0.0495	0.0252	-0.0495	0.0582			
1.46	0.0234	0.00757	0.0234	0.208			
0.958	-0.0114	-0.00717	-0.0114	0.0453			
1.44	0.0643	-0.000218	0.0643	0.0943			
0.902	0.0458	-0.00829	0.0458	0.0261			
1.31	-0.00403	0.0000891	-0.00403	0.0595			
0.322	0.0153	-0.000994	0.0153	0.111			
0.81	0.144	0.00111	0.144	0.0607			
1.23	0.0703	0.0218	0.0703	0.106			
0.829	0.0475	0.00846	0.0475	-0.0229			
0.508	0.0342	0.000035	0.0342	-0.016			

[707 | 9 | 78 | Systematic | 03707-S0009-F078-01 | 08-Jun-11 | Jeff Rolfe | 1.041 | Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)





LEGEND:

- SYSTEMATIC 1 SAMPLES 1-20
- BIASED SAMPLES 21-32
- POST REMEDIATION 1 SAMPLES 33-41
- POST REMEDIATION 2 SAMPLES 42-44
- SYSTEMATIC 2 SAMPLES 45-64 45
- Sr-90 REMEDIATION 1 SAMPLES 65-66 65
- 0 67 SYSTEMATIC 3 SAMPLES 67-86
- Sr-90 REMEDIATION 2 SAMPLES 87-90 87
- POST REMEDIATION 3 SAMPLES 91
- CHARACTERIZATION SAMPLES 92
- PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:30

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 16



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m² Count Time: 1 min

1 11/22/2010 10:03 7085 5817 1268 479-BKGDSIA 7378 2 11/22/2010 10:05 6079 5817 262 479-BKGDSIA 7378 3 11/22/2010 10:05 6079 5817 262 479-BKGDSIA 7378 4 11/22/2010 10:07 7188 5817 1371 479-BKGDSIA 7378 5 11/22/2010 10:28 6581 5817 764 479-BKGDSIA 7378 6 11/22/2010 10:29 4524 5817 -1293 479-BKGDSIA 7378 7 11/22/2010 10:30 8160 5817 2818 479-BKGDSIA 7378 8 11/22/2010 10:30 8160 5817 2818 479-BKGDSIA 7378 8 11/22/2010 10:35 5807 5817 204 479-BKGDSIA 7378 9 11/22/2010 10:35 5837 5817 20 479-BKGDSIA 7378 10 11/22/2010 10:35 626 5817 809 479-BKGDSIA 7378 11 11/22/2010 10:36 4153 5817 -1664 479-BKGDSIA 7378 11 11/22/2010 10:38 6626 5817 809 479-BKGDSIA 7378 12 11/22/2010 10:38 6626 5817 809 479-BKGDSIA 7378 13 11/22/2010 10:38 6626 5817 809 479-BKGDSIA 7378 14 11/22/2010 10:41 4585 5817 -1232 479-BKGDSIA 7378 15 11/22/2010 10:42 5829 5817 12 479-BKGDSIA 7378 16 11/22/2010 10:43 6930 5817 1113 479-BKGDSIA 7378 17 11/22/2010 10:43 6930 5817 1113 479-BKGDSIA 7378 18 11/22/2010 10:43 6930 5817 1113 479-BKGDSIA 7378 19 11/22/2010 10:48 6930 5817 176 479-BKGDSIA 7378 19 11/22/2010 10:49 5067 5817 -504 479-BKGDSIA 7378 20 11/22/2010 10:49 5067 5817 -750 479-BKGDSIA 7378 21 12/1/2010 11:43 5001 5817 10:0930 479-BKGDSIA 7378 22 12/1/2010 11:43 5001 5817 10:0930 479-BKGDSIA 7378 23 12/1/2010 11:43 5001 5817 10:0930 479-BKGDSIA 7378 24 12/1/2010 11:43 5001 5817 10:0930 479-BKGDSIA 7378 25 12/1/2010 11:44 71:5 5817 13:58 479-BKGDSIA 7378 26 12/1/2010 11:45 7722 5817 12:0930 479-BKGDSIA 7378 27 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 29 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 20 11/22/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 21 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 22 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 23 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 24 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 25 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 26 12/1/2010 11:45 7722 5817 13:58 479-BKGDSIA 7378 27 1	Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
2 11/22/2010 10:05 6079 5817 262 479-8KGDS1A 7378 3 11/22/2010 10:06 6763 5817 946 479-8KGDS1A 7378 4 11/22/2010 10:07 7188 5817 1371 479-8KGDS1A 7378 5 11/22/2010 10:28 6581 5817 764 479-8KGDS1A 7378 6 11/22/2010 10:29 4524 5817 -1293 479-8KGDS1A 7378 7 11/22/2010 10:30 5150 5817 5817 7818 479-8KGDS1A 7378 8 11/22/2010 10:33 5837 5817 20 479-8KGDS1A 7378 8 11/22/2010 10:33 5837 5817 20 479-8KGDS1A 7378 10 11/22/2010 10:35 5827 5817 10:09 479-8KGDS1A 7378 11 11/22/2010 10:35 625 5817 10:09 479-8KGDS1A 7378 11 11/22/2010 10:36 4153 5817 -1664 479-8KGDS1A 7378 12 11/22/2010 10:36 4153 5817 -1664 479-8KGDS1A 7378 12 11/22/2010 10:38 6626 5817 809 479-8KGDS1A 7378 13 11/22/2010 10:38 6626 5817 809 479-8KGDS1A 7378 14 11/22/2010 10:39 7675 5817 1293 479-8KGDS1A 7378 15 11/22/2010 10:41 4585 5817 -1232 479-8KGDS1A 7378 16 11/22/2010 10:42 5829 5817 12 479-8KGDS1A 7378 17 11/22/2010 10:45 7312 5817 113 479-8KGDS1A 7378 18 11/22/2010 10:45 5313 5817 -504 479-8KGDS1A 7378 19 11/22/2010 10:45 5313 5817 -504 479-8KGDS1A 7378 20 11/22/2010 10:49 5067 5817 -750 479-8KGDS1A 7378 21 12/1/2010 11:37 6079 5817 262 479-8KGDS1A 7378 22 12/1/2010 11:45 5005 5817 -750 479-8KGDS1A 7378 23 12/1/2010 11:45 5005 5817 -211 479-8KGDS1A 7378 24 12/1/2010 11:45 5005 5817 -211 479-8KGDS1A 7378 25 12/1/2010 11:45 7312 5817 1358 479-8KGDS1A 7378 26 12/1/2010 11:45 5005 5817 -211 479-8KGDS1A 7378 27 12/1/2010 11:45 7722 5817 1358 479-8KGDS1A 7378 28 12/1/2010 11:45 7312 5817 1358 479-8KGDS1A 7378 29 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 20 11/22/2010 11:45 7312 5817 1358 479-8KGDS1A 7378 20 11/21/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 21 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 21 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 22 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 23 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 24 12/1/2010 11:45 7325 5817 1358 479-8KGDS1A 7378 25 12/1/2010 11:46 7335 5817 1358 479-8KGDS1A 7378 26 12/1/2010 11:46 7335 5817 1358 479-8KGDS1A 7378 27 12/1/2010 11:49 7355 5817 2018 479-8KGDS1A	1	11/22/2010 10:03				479-BKGDS1A		
3 11/22/2010 10:06 6763 5817 946 479-8KGDS1A 7378 4 11/22/2010 10:07 7188 5817 1371 479-8KGDS1A 7378 5 11/22/2010 10:02 6581 5817 764 479-8KGDS1A 7378 6 11/22/2010 10:29 4524 5817 -1293 479-8KGDS1A 7378 7 11/22/2010 10:30 8166 5817 2241 479-8KGDS1A 7378 8 11/22/2010 10:30 8166 5817 2241 479-8KGDS1A 7378 8 11/22/2010 10:32 8501 5817 206 479-8KGDS1A 7378 9 11/22/2010 10:35 7676 5817 20 479-8KGDS1A 7378 10 11/22/2010 10:35 7676 5817 1664 479-8KGDS1A 7378 11 11/22/2010 10:36 4153 5817 -1664 479-8KGDS1A 7378 11 11/22/2010 10:36 8626 5817 809 479-8KGDS1A 7378 12 11/22/2010 10:38 6626 5817 809 479-8KGDS1A 7378 13 11/22/2010 10:34 6585 5817 123 479-8KGDS1A 7378 14 11/22/2010 10:41 4585 5817 122 479-8KGDS1A 7378 15 11/22/2010 10:42 5829 5817 12 479-8KGDS1A 7378 16 11/22/2010 10:45 7312 5817 1495 479-8KGDS1A 7378 17 11/22/2010 10:45 6930 5817 1113 479-8KGDS1A 7378 18 11/22/2010 10:46 5313 5817 -504 479-8KGDS1A 7378 19 11/22/2010 10:48 6993 5817 1176 479-8KGDS1A 7378 20 11/22/2010 10:49 5067 5817 -750 479-8KGDS1A 7378 21 12/1/2010 11:35 9091 5817 2274 479-8KGDS1A 7378 21 12/1/2010 11:35 9091 5817 2262 479-8KGDS1A 7378 22 12/1/2010 11:35 9091 5817 2262 479-8KGDS1A 7378 23 12/1/2010 11:48 78079 5817 2262 479-8KGDS1A 7378 24 12/1/2010 11:48 7850 5817 2211 479-8KGDS1A 7378 25 12/1/2010 11:48 7850 5817 2013 479-8KGDS1A 7378 26 12/1/2010 11:47 8079 5817 2013 479-8KGDS1A 7378 27 12/1/2010 11:48 7850 5817 2013 479-8KGDS1A 7378 28 12/1/2010 11:48 7850 5817 2013 479-8KGDS1A 7378 29 12/1/2010 11:48 7850 5817 2013 479-8KGDS1A 7378 20 11/2/2010 11:48 7850 5817 2013 479-8KGDS1A 7378 20 11/2/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 21 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 22 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 23 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 24 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 25 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 26 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 27 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378 29 12/1/2010 11:49 8050 5817 2013 479-8KGDS1A 7378								
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22 12/1/2010 11:37 8079 5817 2262 479-8KGDS1A 7378 23 12/1/2010 11:38 8910 5817 3093 479-8KGDS1A 7378 24 12/1/2010 11:41 5606 5817 -211 479-8KGDS1A 7378 25 12/1/2010 11:42 7175 5817 1358 479-8KGDS1A 7378 26 12/1/2010 11:44 7850 5817 2033 479-8KGDS1A 7378 27 12/1/2010 11:45 7722 5817 1905 479-8KGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-8KGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-8KGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-8KGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-8KGDS1A 7378	20	11/22/2010 10:49	5067	5817	-750	479-BKGDS1A	7378	
23 12/1/2010 11:38 8910 5817 3093 479-8KGDS1A 7378 24 12/1/2010 11:41 5606 5817 -211 479-8KGDS1A 7378 25 12/1/2010 11:42 7175 5817 1358 479-8KGDS1A 7378 26 12/1/2010 11:44 7850 5817 2013 479-8KGDS1A 7378 27 12/1/2010 11:45 7722 5817 1905 479-8KGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-8KGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-8KGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-8KGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-8KGDS1A 7378	21	12/1/2010 11:35	9091	5817	3274	479-BKGDS1A	7378	
24 12/1/2010 11:41 5606 5817 -211 479-BKGDS1A 7378 25 12/1/2010 11:42 7175 5817 1358 479-BKGDS1A 7378 26 12/1/2010 11:44 7850 5817 2033 479-BKGDS1A 7378 27 12/1/2010 11:45 7722 5817 1905 479-BKGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	22	12/1/2010 11:37	8079	5817	2262	479-BKGDS1A	7378	
25 12/1/2010 11:42 7175 5817 1358 479-BKGDS1A 7378 26 12/1/2010 11:44 7850 5817 2033 479-BKGDS1A 7378 27 12/1/2010 11:45 7722 5817 1905 479-BKGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	23	12/1/2010 11:38	8910	5817	3093	479-BKGDS1A	7378	
26 12/1/2010 11:44 7850 5817 2033 479-BKGDS1A 7378 27 12/1/2010 11:45 7722 5817 1905 479-BKGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	24	12/1/2010 11:41	5606	5817	-211	479-BKGDS1A	7378	
27 12/1/2010 11:45 7722 5817 1905 479-BKGDS1A 7378 28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	25	12/1/2010 11:42	7175	5817	1358	479-BKGDS1A	7378	
28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	26	12/1/2010 11:44	7850	5817	2033	479-BKGDS1A	7378	
28 12/1/2010 11:47 8948 5817 3131 479-BKGDS1A 7378 29 12/1/2010 11:48 7335 5817 1518 479-BKGDS1A 7378 30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	27	12/1/2010 11:45	7722	5817	1905	479-BKGDS1A	7378	
30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	_	12/1/2010 11:47	8948	5817	3131	479-BKGDS1A	7378	
30 12/1/2010 11:49 8065 5817 2248 479-BKGDS1A 7378 31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	29	12/1/2010 11:48	7335	5817	1518	479-BKGDS1A	7378	The second secon
31 12/1/2010 11:51 8691 5817 2874 479-BKGDS1A 7378	_							
152 12/1/2010 11:52 80/2 581/ 2255 4/9-BKGDS1A 7378	32	12/1/2010 11:52	8072	5817	2255	479-BKGDS1A	7378	



Class: 1 Area: 989.60 m² Count Time: 1 min Survey Unit: 16 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	1/17/2011 12:55	7653	5817	1836	479-BKGDS1A	7378	
34	1/17/2011 12:56	5475	5817	-342	479-BKGDS1A	7378	
35	1/17/2011 12:57	6207	5817	390	479-BKGDS1A	7378	
36	1/17/2011 12:58	7097	5817	1280	479-BKGD51A	7378	
37	1/17/2011 13:31	7831	5817	2014	479-BKGDS1A	7378	
38	1/17/2011 13:34	7692	5817	1875	479-BKGDS1A	7378	
39	1/17/2011 13:35	5518	5817	-299	479-BKGDS1A	7378	
40	1/17/2011 13:37	5582	5817	-235	479-BKGDS1A	7378	W. ORSESTROLE P.
41	1/17/2011 13:38	5458	5817	-359	479-BKGDS1A	7378	
42	2/15/2011 13:30	4468	5817	-1349	479-BKGDS1A	7378	
43	2/15/2011 13:31	4068	5817	-1749	479-BKGDS1A	7378	
44	2/15/2011 13:33	4389	5817	-1428	479-BKGDS1A	7378	
45	3/4/2011 13:24	6582	5817	765	479-BKGDS1A	7378	
46	3/4/2011 13:25	4625	5817	-1192	479-BKGDS1A	7378	
47	3/4/2011 13:27	4602	5817	-1215	479-BKGDS1A	7378	
48	3/4/2011 13:28	4255	5817	-1562	479-BKGDS1A	7378	
49	3/4/2011 13:29	5058	5817	-759	479-BKGDS1A	7378	
50	3/4/2011 13:31	5728	5817	-89	479-BKGDS1A	7378	
51	3/4/2011 13:32	4575	5817	-1242	479-BKGDS1A	7378	
52	3/4/2011 13:33	6462	5817	645	479-BKGDS1A	7378	
53	3/4/2011 13:34	6598	5817	781	479-BKGDS1A	7378	
54	3/4/2011 13:36	4836	5817	-981	479-BKGDS1A	7378	
55	3/4/2011 13:37	6885	5817	1068	479-BKGDS1A	7378	
56	3/4/2011 13:38	4266	5817	-1551	479-BKGDS1A	7378	8.741.848.94.44
57	3/4/2011 13:40	4291	5817	-1526	479-BKGDS1A	7378	
58	3/4/2011 13:41	6628	5817	811	479-BKGDS1A	7378	
59	3/4/2011 13:42	6493	5817	676	479-BKGDS1A	7378	
60	3/4/2011 13:44	6347	5817	530	479-BKGDS1A	7378	
61	3/4/2011 13:45	5895	5817	78	479-BKGDS1A	7378	
62	3/4/2011 13:46	4538	5817	-1279	479-BKGDS1A	7378	
63	3/4/2011 13:47	6903	5817	1086	479-BKGDS1A	7378	
64	3/4/2011 13:49	6963	5817	1146	479-BKGDS1A	7378	



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1 Count Time: 1 min

Dda #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
nug #	Date / Time	Gamma	Background		ID*	Investigation	Comments
		СРМ	СРМ	CPM		Level (cpm)	
65	5/6/2011 11:39	5500	5817	-317	479-BKGDS1A	7378	
66	5/6/2011 11:40	4943	5817	-874	479-BKGDS1A	7378	
67	6/7/2011 12:50	5849	5873	-24	518-BKGDS1B	7049	
68	6/7/2011 12:51	5203	5873	-670	518-BKGDS1B	7049	
69	6/7/2011 12:52	5503	5873	-370	518-BKGDS1B	7049	
70	6/7/2011 12:54	5251	5873	-622	518-BKGDS1B	7049	
71	6/7/2011 12:55	4026	5873	-1847	518-BKGDS1B	7049	
72	6/7/2011 12:57	6356	5873	483	518-BKGDS1B	7049	
73	6/7/2011 12:59	7078	5873	1205	518-BKGDS1B	7049	
74	6/7/2011 13:00	6925	5873	1052	518-BKGDS1B	7049	
75	6/7/2011 13:02	5165	5873	-708	518-BKGDS1B	7049	
76	6/7/2011 13:03	6309	5873	436	518-BKGDS1B	7049	
77	6/7/2011 13:05	4257	5873	-1616	518-BKGDS1B	7049	
78	6/7/2011 13:07	6537	5873	664	518-BKGDS1B	7049	
79	6/7/2011 13:09	7256	5873	1383	518-BKGDS1B	7049	
80	6/7/2011 13:12	7065	5873	1192	518-BKGDS18	7049	
81	6/7/2011 13:14	4017	5873	-1856	518-BKGDS1B	7049	The same of the sa
82	6/7/2011 13:15	4383	5873	-1490	518-BKGDS1B	7049	
83	6/7/2011 13:17	7074	5873	1201	518-BKGDS1B	7049	
84	6/7/2011 13:18	7012	5873	1139	518-BKGDS1B	7049	
85	6/7/2011 13:20	5153	5873	-720	518-BKGDS1B	7049	
86	6/7/2011 13:21	4363	5873	-1510	518-BKGD\$1B	7049	
87	5/4/2012 12:48	4185	5845	-1660	622-BKGDS1A	7004	
88	5/4/2012 12:50	3883	5845	-1962	622-BKGDS1A	7004	
89	5/4/2012 12:51	4768	5845	-1077	622-BKGDS1A	7004	
90	5/4/2012 15:08	5960	5845	115	622-BKGDS1A	7004	
91	6/29/2012 13:36	3858	5845	-1987	622-BKGDS1A	7004	
92	8/7/2012 11:13	6812	5845	967	622-BKGDS1A	7004	

TETRATECH EC, INC. Gamma Direct Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg # Date / Time Gross Gamma Net Background 3σ Comments
Gamma Background Gamma ID* Investigation
CPM CPM CPM CPM Level (cpm)

Net Gamma cpm Min: -1987
Summary

Avg: 289

Max: 3274 St Dev: 1387

Readings > 30 investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 479 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-8KGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm): 5817

Standard Deviation: 520

Gamma 3σ Investigation 7378

Level (cpm):



Gamma Instrument and Reference Area Background Report

Area: 989.60 m²

Site Area: 707 Survey Unit: 16 Class: 1 Are Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 518

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 126182

Probe Serial #: 230161

Calibration Due Date: 11/17/2011

Reference Area Background Identification #: 518-8KGDS1B Count Time (minutes): 1.00

Rdg#	Date and Time	Gross Gamma CPM
1	03/01/2011 10:24	5734
2	03/01/2011 10:26	6197
3	03/01/2011 10:27	5923
4	03/01/2011 10:28	5458
5	03/01/2011 10:29	6885
6	03/01/2011 10:30	5930
7	03/01/2011 10:31	5459
8	03/01/2011 10:32	5899
9	03/01/2011 10:34	5865
10	03/01/2011 10:35	5347
11	03/01/2011 10:36	5470
12	03/01/2011 10:37	5852
13	03/01/2011 10:38	6022
14	03/01/2011 10:40	6222
15	03/01/2011 10:41	5742
16	03/01/2011 10:42	5119
17	03/01/2011 10:43	5970
18	03/01/2011 10:44	5959
19	03/01/2011 10:45	6120
20	03/01/2011 10:46	6291

Gamma Mean Background (cpm): 5873

Standard Deviation: 392

Gamma 3σ Investigation 7049

Level (cpm):



Gamma Instrument and Reference Area **Background Report**

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m² Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 622

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg#	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 1S:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm): 5845

> **Standard Deviation:** 386

7004 Gamma 3_o Investigation

Level (cpm):



TETRATECH EC. INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m² Count Time: 1 min

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/22/2010 8:08	66	72	-6	513-BKGDS1A	133	
2	11/22/2010 8:09	65	72	-7	513-BKGDS1A	133	100
3	11/22/2010 8:10	73	72	1	513-BKGDS1A	133	
4	11/22/2010 8:12	78	72	6	513-BKGDS1A	133	(acc)
5	11/22/2010 8:13	100	72	28	513-BKGDS1A	133	
5	11/22/2010 8:15	68	72	-4	513-BKGDS1A	133	
7	11/22/2010 8:16	83	72	11	513-BKGDS1A	133	
В	11/22/2010 8:18	109	72	37	513-BKGDS1A	133	
9	11/22/2010 8:19	77	72	5	513-BKGD\$1A	133	7.50
10	11/22/2010 8:21	73	72	1	513-BKGDS1A	133	
11	11/22/2010 8:22	44	72	-28	513-BKGDS1A	133	
12	11/22/2010 8:25	72	72	0	513-BKGDS1A	133	
13	11/22/2010 8:27	78	72	6	513-BKGDS1A	133	
14	11/22/2010 8:28	49	72	-23	513-BKGDS1A	133	The application of the second control of
15	11/22/2010 8:29	71	72	-1	513-BKGDS1A	133	
16	11/22/2010 8:31	89	72	17	513-BKGDS1A	133	
17	11/22/2010 8:32	85	72	13	513-BKGDS1A	133	
18	11/22/2010 8:33	75	72	3	513-BKGDS1A	133	
19	11/22/2010 8:34	83	72	11	513-BKGDS1A	133	
20	11/22/2010 8:36	54	72	-18	513-BKGDS1A	133	
21	12/1/2010 8:18	72	72	0	513-BKGD\$1A	133	
22	12/1/2010 8:19	75	72	3	513-BKGD\$1A	133	
23	12/1/2010 8:21	82	72	10	513-BKGDS1A	133	
24	12/1/2010 8:22	60	72	-12	513-BKGDS1A	133	
25	12/1/2010 8:24	75	72	3	513-BKGDS1A	133	
26	12/1/2010 8:25	75	72	3	513-BKGDS1A	133	
27	12/1/2010 8:26	83	72	11	513-BKGDS1A	133	
28	12/1/2010 8:29	87	72	15	513-BKGDS1A	133	N N 188 (1
29	12/1/2010 8:30	86	72	14	513-BKGDS1A	133	
30	12/1/2010 8:32	75	72	3	513-BKGDS1A	133	
31	12/1/2010 8:35	81	72	9	513-BKGDS1A	133	
32	12/1/2010 8:36	85	72	13	513-BKGDS1A	133	
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Site Area: 707 Class: 1 Area: 989.60 m² Count Time: 1 min Survey Unit: 16

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	1/17/2011 13:43	73	72	1	513-BKGDS1A	133	
34	1/17/2011 13:45	58	72	-14	513-BKGDS1A	133	
35	1/17/2011 13:46	55	72	-17	513-BKGDS1A	133	
36	1/17/2011 13:47	70	72	-2	513-BKGDS1A	133	
37	1/17/2011 13:48	65	72	-7	513-BKGDS1A	133	
38	1/17/2011 13:50	70	72	-2	513-BKGDS1A	133	
39	1/17/2011 13:51	67	72	-5	513-BKGDS1A	133	
40	1/17/2011 13:52	60	72	-12	513-BKGDS1A	133	100520130
41	1/17/2011 13:53	70	72	-2	513-BKGDS1A	133	
42	2/15/2011 13:53	48	72	-24	513-BKGDS1A	133	
43	2/15/2011 13:56	56	72	-16	513-BKGDS1A	133	
44	2/15/2011 13:57	43	72	-29	513-BKGDS1A	133	
45	3/4/2011 13:21	65	72	-7	513-BKGDS1A	133	
46	3/4/2011 13:22	62	72	-10	513-BKGDS1A	133	
47	3/4/2011 13:23	40	72	-32	513-BKGDS1A	133	
48	3/4/2011 13:25	49	72	-23	513-BKGDS1A	133	
49	3/4/2011 13:26	82	72	10	513-BKGDS1A	133	
50	3/4/2011 13:27	71	72	-1	513-BKGDS1A	133	
51	3/4/2011 13:29	42	72	-30	513-BKGDS1A	133	
52	3/4/2011 13:30	73	72	1	513-BKGDS1A	133	
53	3/4/2011 13:32	62	72	-10	513-BKGDS1A	133	
54	3/4/2011 13:33	58	72	-14	513-BKGDS1A	133	
55	3/4/2011 13:34	53	72	-19	513-BKGDS1A	133	
56	3/4/2011 13:36	40	72	-32	513-BKGDS1A	133	
57	3/4/2011 13:37	61	72	-11	513-BKGDS1A	133	
58	3/4/2011 13:39	70	72	-2	513-BKGDS1A	133	
59	3/4/2011 13:40	50	72	-22	513-BKGDS1A	133	
60	3/4/2011 13:42	53	72	-19	513-BKGDS1A	133	
61	3/4/2011 13:43	44	72	-28	513-BKGDS1A	133	
62	3/4/2011 13:45	75	72	3	513-BKGDS1A	133	
63	3/4/2011 13:46	78	72	6	513-BKGDS1A	133	
64	3/4/2011 13:48	62	72	-10	513-BKGDS1A	133	



Survey Unit: 16 Area: 989.60 m² Count Time: 1 min Site Area: 707 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	5/6/2011 11:36	83	72	11	513-BKGD\$1A	133	10-20-20-20-20-20-20-20-20-20-20-20-20-20
66	5/6/2011 11:37	82	72	10	513-BKGDS1A	133	
67	6/7/2011 13:25	83	72	11	513-BKGDS1A	133	
68	6/7/2011 13:26	95	72	23	513-BKGDS1A	133	
69	6/7/2011 13:27	59	72	-13	513-BKGDS1A	133	
70	6/7/2011 13:29	60	72	-12	513-BKGDS1A	133	
71	6/7/2011 13:30	80	72	8	513-BKGDS1A	133	
72	6/7/2011 13:31	92	72	20	513-BKGDS1A	133	
73	6/7/2011 13:32	67	72	-5	513-BKGDS1A	133	
74	6/7/2011 13:34	95	72	23	513-BKGDS1A	133	
75	6/7/2011 13:35	83	72	11	513-BKGDS1A	133	
76	6/7/2011 13:36	76	72	4	513-BKGDS1A	133	
77	6/7/2011 13:38	63	72	-9	513-BKGDS1A	133	
78	6/7/2011 13:39	54	72	-18	513-BKGDS1A	133	
79	6/7/2011 13:41	57	72	-15	513-BKGDS1A	133	
80	6/7/2011 13:42	80	72	8	513-BKGDS1A	133	
81	6/7/2011 13:45	73	72	1	513-BKGDS1A	133	
82	6/7/2011 13:46	59	72	-13	513-BKGDS1A	133	
83	6/7/2011 13:48	57	72	-15	513-BKGDS1A	133	
84	6/7/2011 13:49	89	72	17	513-BKGDS1A	133	
85	6/7/2011 13:50	84	72	12	513-BKGDS1A	133	
86	6/7/2011 13:51	65	72	-7	513-BKGDS1A	133	
87	5/4/2012 12:46	167	199	-32	620-BKGDS1A	344	
88	5/4/2012 12:47	139	199	-60	620-BKGDS1A	344	
89	5/4/2012 12:48	174	199	-25	620-BKGDS1A	344	
90	5/4/2012 15:07	192	199	-7	620-BKGDS1A	344	
91	6/29/2012 13:37	143	199	-56	620-BKGDS1A	344	
92	8/7/2012 14:32	226	199	27	620-BKGDS1A	344	



TETRATECHEC, INC. Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg # Date / Time	Gross	Gamma	Net	Background	3σ	Comments
	Gamma	Background	Gamma	ID*	Investigation	
	CPM	СРМ	CPM		Level (cpm)	

Net Gamma cpm

Min: -60

Summary

Avg: 4

Max: 37 St Dev: 17

Readings $> 3\sigma$ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements



TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/9/2010 7:30	38	72	-34	513-BKGDS1A	133	
2	11/9/2010 7:31	69	72	-3	513-BKGDS1A	133	
3	11/9/2010 7:31	83	72	11	513-BKGDS1A	133	
4	11/9/2010 7:31	56	72	-16	513-BKGDS1A	133	
5	11/9/2010 7:31	60	72	-12	513-BKGDS1A	133	Note the second
6	11/9/2010 7:31	85	72	13	513-BKGDS1A	133	
7	11/9/2010 7:31	55	72	-17	513-BKGDS1A	133	
8	11/9/2010 7:31	38	72	-34	513-BKGDS1A	133	
9	11/9/2010 7:31	67	72	-5	513-BKGDS1A	133	
10	11/9/2010 7:32	105	72	33	513-BKGDS1A	133	
11	11/9/2010 7:32	103	72	31	513-BKGDS1A	133	
12	11/9/2010 7:32	63	72	-9	513-BKGDS1A	133	
13	11/9/2010 7:32	58	72	-14	513-BKGDS1A	133	
14	11/9/2010 7:32	93	72	21	513-BKGDS1A	133	
15	11/9/2010 7:32	71	72	-1	513-BKGDS1A	133	
16	11/9/2010 7:32	52	72	-20	513-BKGDS1A	133	
17	11/9/2010 7:32	52	72	-20	513-BKGDS1A	133	
18	11/9/2010 7:32	88	72	16	513-BKGDS1A	133	
19	11/9/2010 7:33	67	72	-5	513-BKGDS1A	133	
20	11/9/2010 7:33	37	72	-35	513-BKGDS1A	133	
21	11/9/2010 7:33	33	72	-39	513-BKGDS1A	133	
22	11/9/2010 7:33	75	72	3	513-BKGDS1A	133	
23	11/9/2010 7:33	55	72	-17	513-BKGD\$1A	133	\$200 TO \$2000
24	11/9/2010 7:33	59	72	-13	513-BKGD\$1A	133	
25	11/9/2010 7:33	55	72	-17	513-BKGDS1A	133	
26	11/9/2010 7:33	78	72	6	513-BKGDS1A	133	
27	11/9/2010 7:34	60	72	-12	513-BKGDS1A	133	
28	11/9/2010 7:34	25	72	-47	513-BKGDS1A	133	
29	11/9/2010 7:34	41	72	-31	513-BKGDS1A	133	
30	11/9/2010 7:34	43	72	-29	513-BKGDS1A	133	
31	11/9/2010 7:34	70	72	-2	513-BKGDS1A	133	
32	11/9/2010 7:35	73	72	1	513-BKGDS1A	133	



Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
33	11/9/2010 7:35	72	72	0	513-BKGDS1A	133	
34	11/9/2010 7:35	73	72	1	513-BKGDS1A	133	
35	11/9/2010 7:35	96	72	24	513-BKGDS1A	133	
36	11/9/2010 7:35	106	72	34	513-BKGDS1A	133	
37	11/9/2010 7:35	77	72	5	513-BKGDS1A	133	
38	11/9/2010 7:35	75	72	3	513-BKGD\$1A	133	
39	11/9/2010 7:35	56	72	-16	513-BKGDS1A	133	
40	11/9/2010 7:36	95	72	23	513-BKGDS1A	133	
41	11/9/2010 7:36	92	72	20	513-BKGDS1A	133	
42	11/9/2010 7:36	67	72	- 5	513-BKGDS1A	133	
43	11/9/2010 7:36	76	72	4	513-BKGDS1A	133	
44	11/9/2010 7:36	61	72	-11	513-BKGDS1A	133	
45	11/9/2010 7:36	67	72	-5	513-BKGDS1A	133	
46	11/9/2010 7:36	52	72	-20	513-BKGDS1A	133	
47	11/9/2010 7:36	54	72	-18	513-BKGDS1A	133	
48	11/9/2010 7:36	71	72	-1	513-BKGDS1A	133	
49	11/9/2010 7:37	66	72	-6	513-BKGDS1A	133	
50	11/9/2010 7:37	68	72	-4	513-BKGDS1A	133	
51	11/9/2010 7:37	64	72	-8	513-BKGDS1A	133	
52	11/9/2010 7:37	46	72	-26	513-BKGDS1A	133	
53	11/9/2010 7:38	46	72	-26	513-BKGDS1A	133	
54	11/9/2010 7:38	42	72	-30	513-BKGDS1A	133	
55	11/9/2010 7:38	61	72	-11	513-BKGDS1A	133	
56	11/9/2010 7:38	67	72	-5	513-BKGDS1A	133	
57	11/9/2010 7:38	65	72	-7	513-BKGDS1A	133	
58	11/9/2010 7:38	75	72	3	513-BKGDS1A	133	
59	11/9/2010 7:38	70	72	-2	513-BKGDS1A	133	
60	11/9/2010 7:38	69	72	-3	513-BKGDS1A	133	ENTERON DE LA CONTRACTOR DEL CONTRACTOR DE LA CONTRACTOR
61	11/9/2010 7:39	59	72	-13	513-BKGDS1A	133	
62	11/9/2010 7:39	44	72	-28	513-BKGDS1A	133	
63	11/9/2010 7:39	41	72	-31	513-BKGDS1A	133	
64	11/9/2010 7:39	29	72	-43	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	11/9/2010 7:39	42	72	-30	513-BKGDS1A	133	
66	11/9/2010 7:39	76	72	4	513-BKGDS1A	133	
67	11/9/2010 7:39	57	72	-15	513-BKGDS1A	133	
68	11/9/2010 7:39	76	72	4	513-BKGDS1A	133	
69	11/9/2010 7:39	61	72	-11	513-BKGDS1A	133	
70	11/9/2010 7:40	78	72	6	513-BKGDS1A	133	
71	11/9/2010 7:40	91	72	19	513-BKGDS1A	133	
72	11/9/2010 7:40	55	72	-17	513-BKGDS1A	133	
73	11/9/2010 7:40	69	72	-3	513-BKGDS1A	133	
74	11/9/2010 7:40	76	72	4	513-BKGDS1A	133	
75	11/9/2010 7:40	52	72	-20	513-BKGDS1A	133	
76	11/9/2010 7:40	38	72	-34	513-BKGDS1A	133	
77	11/9/2010 7:40	36	72	-36	513-BKGDS1A	133	1 10/45/125
78	11/9/2010 7:41	43	72	-29	513-BKGDS1A	133	
79	11/9/2010 7:41	36	72	-36	513-BKGDS1A	133	
80	11/9/2010 7:41	49	72	-23	513-BKGDS1A	133	
81	11/9/2010 7:41	55	72	-17	513-BKGDS1A	133	
82	11/9/2010 7:42	46	72	-26	513-BKGDS1A	133	
83	11/9/2010 7:42	46	72	-26	513-BKGDS1A	133	
84	11/9/2010 7:42	65	72	-7	513-BKGDS1A	133	
85	11/9/2010 7:42	40	72	-32	513-BKGDS1A	133	
86	11/9/2010 7:42	61	72	-11	513-BKGDS1A	133	
87	11/9/2010 7:42	79	72	7	513-BKGDS1A	133	
88	11/9/2010 7:42	79	72	7	513-BKGDS1A	133	
89	11/9/2010 7:42	72	72	0	513-BKGDS1A	133	
90	11/9/2010 7:43	100	72	28	513-BKGDS1A	133	
91	11/9/2010 7:43	126	72	54	513-BKGDS1A	133	
92	11/9/2010 7:43	71	72	-1	513-BKGDS1A	133	
93	11/9/2010 7:43	49	72	-23	513-BKGDS1A	133	1 2 2
94	11/9/2010 7:43	75	72	3	513-BKGDS1A	133	
95	11/9/2010 7:43	63	72	-9	513-BKGDS1A	133	
96	11/9/2010 7:43	43	72	-29	513-BKGDS1A	133	



Area: 989.60 m² Class: 1 Survey Unit: 16 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
97	11/9/2010 7:43	5 <mark>8</mark>	72	-14	513-BKGDS1A	133		
98	11/9/2010 7:43	74	72	2	513-BKGDS1A	133		
99	11/9/2010 7:44	77	72	5	513-BKGDS1A	133		
100	11/9/2010 7:44	72	72	0	513-BKGDS1A	133		
101	11/9/2010 7:44	55	72	-17	513-BKGDS1A	133		
102	11/9/2010 7:44	61	72	-11	513-BKGDS1A	133		
103	11/9/2010 7:44	49	72	-23	513-BKGDS1A	133		
104	11/9/2010 7:44	70	72	-2	513-BKGDS1A	133		
105	11/9/2010 7:45	42	72	-30	513-BKGDS1A	133		
106	11/9/2010 7:45	24	72	-48	513-BKGDS1A	133	E	
107	11/9/2010 7:45	39	72	-33	513-BKGDS1A	133		
108	11/9/2010 7:45	48	72	-24	513-BKGDS1A	133		-
109	11/9/2010 7:45	40	72	-32	513-BKGDS1A	133		(
110	11/9/2010 7:46	56	72	-16	513-BKGDS1A	133		
111	11/9/2010 7:46	59	72	-13	513-BKGDS1A	133		ĺ
112	11/9/2010 7:46	95	72	23	513-BKGDS1A	133		İ
113	11/9/2010 7:46	125	72	53	513-BKGDS1A	133		İ
114	11/9/2010 7:46	110	72	38	513-BKGDS1A	133		İ
115	11/9/2010 7:46	70	72	-2	513-BKGDS1A	133		
116	11/9/2010 7:46	40	72	-32	513-BKGDS1A	133		
117	11/9/2010 7:46	63	72	-9	513-BKGDS1A	133		
118	11/9/2010 7:47	99	72	27	513-BKGDS1A	133		İ
119	11/9/2010 7:47	83	72	11	513-BKGDS1A	133		İ
120	11/9/2010 7:47	74	72	2	513-BKGDS1A	133		ı
121	11/9/2010 7:47	61	72	-11	513-BKGDS1A	133		İ
122	11/9/2010 7:47	76	72	4	513-BKGDS1A	133		ĺ
123	11/9/2010 7:47	58	72	-14	513-BKGDS1A	133		
124	11/9/2010 7:47	47	72	-25	513-BKGDS1A	133		
125	11/9/2010 7:47	50	72	-22	513-BKGDS1A	133		İ
126	11/9/2010 7:47	48	72	-24	513-BKGDS1A	133		ĺ
127	11/9/2010 7:48	102	72	30	513-BKGDS1A	133		(
128	11/9/2010 7:48	121	72	49	513-BKGDS1A	133		i`



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

	2 1 1 2			**			
Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	СРМ	10	Level (cpm)	
129	11/9/2010 7:48	112	72	40	513-BKGDS1A	133	
130	11/9/2010 7:48	75	72	3	513-BKGDS1A	133	
131	11/9/2010 7:49	32	72	-40	513-BKGDS1A	133	
132	11/9/2010 7:50	53	72	-19	513-BKGDS1A	133	
133	11/9/2010 7:50	73	72	1	513-BKGDS1A	133	
134	11/9/2010 7:50	57	72	-15	513-BKGDS1A	133	1
135	11/9/2010 7:50	59	72	-13	513-BKGDS1A	133	
136	11/9/2010 7:50	61	72	-11	513-BKGDS1A	133	
137	11/9/2010 7:50	79	72	7	513-BKGDS1A	133	
138	11/9/2010 7:50	65	72	-7	513-BKGDS1A	133	
139	11/9/2010 7:50	62	72	-10	513-BKGDS1A	133	
140	11/9/2010 7:51	52	72	-20	513-BKGDS1A	133	
141	11/9/2010 7:51	73	72	1	513-BKGDS1A	133	
142	11/9/2010 7:51	68	72	-4	513-BKGDS1A	133	
143	11/9/2010 7:51	75	72	3	513-BKGDS1A	133	
144	11/9/2010 7:51	68	72	-4	513-BKGDS1A	133	
145	11/9/2010 7:51	59	72	-13	513-BKGDS1A	133	
146	11/9/2010 7:51	55	72	-17	513-BKGDS1A	133	
147	11/9/2010 7:51	76	72	4	513-BKGDS1A	133	
148	11/9/2010 7:51	66	72	-6	513-BKGDS1A	133	The state of the s
149	11/9/2010 7:52	53	72	-19	513-BKGDS1A	133	
150	11/9/2010 7:52	56	72	-16	513-BKGDS1A	133	
151	11/9/2010 7:52	105	72	33	513-BKGDS1A	133	
152	11/9/2010 7:52	62	72	-10	513-BKGDS1A	133	
153	11/9/2010 7:52	70	72	-2	513-BKGDS1A	133	
154	11/9/2010 7:52	68	72	-4	513-BKGDS1A	133	
155	11/9/2010 7:52	66	72	-6	513-BKGDS1A	133	
156	11/9/2010 7:53	65	72	-7	513-BKGDS1A	133	
157	11/9/2010 7:53	60	72	-12	513-BKGDS1A	133	
158	11/9/2010 7:53	60	72	-12	513-BKGDS1A	133	
159	11/9/2010 7:53	85	72	13	513-BKGDS1A	133	
160	11/9/2010 7:54	73	72	1	513-BKGDS1A	133	1 Junatur



Area: 989.60 m² Class: 1 Site Area: 707 Survey Unit: 16

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
161	11/9/2010 7:54	100	72	28	513-BKGDS1A	133	
162	11/9/2010 7:54	94	72	22	513-BKGDS1A	133	
163	11/9/2010 7:54	102	72	30	513-BKGDS1A	133	
164	11/9/2010 7:54	79	72	7	513-BKGDS1A	133	
165	11/9/2010 7:54	66	72	-6	513-BKGDS1A	133	
166	11/9/2010 7:54	56	72	-16	513-BKGDS1A	133	
167	11/9/2010 7:54	58	72	-14	513-BKGDS1A	133	
168	11/9/2010 7:54	53	72	-19	513-BKGDS1A	133	
169	11/9/2010 7:55	64	72	-8	513-BKGDS1A	133	The state of the s
170	11/9/2010 7:55	72	72	0	513-BKGDS1A	133	7 0000 10 (N-1000 2 H-
171	11/9/2010 7:55	62	72	-10	513-BKGDS1A	133	
172	11/9/2010 7:55	57	72	-15	513-BKGDS1A	133	
173	11/9/2010 7:55	57	72	-15	513-BKGDS1A	133	
174	11/9/2010 7:55	45	72	-27	513-BKGDS1A	133	
175	11/9/2010 7:55	65	72	-7	513-BKGDS1A	133	
176	11/9/2010 7:55	78	72	6	513-BKGDS1A	133	
177	11/9/2010 7:56	63	72	-9	513-BKGDS1A	133	
178	11/9/2010 7:56	76	72	4	513-BKGDS1A	133	-1000
179	11/9/2010 7:56	98	72	26	513-BKGDS1A	133	
180	11/9/2010 7:57	34	72	-38	513-BKGDS1A	133	
181	11/9/2010 7:57	54	72	-18	513-BKGDS1A	133	
182	11/9/2010 7:57	69	72	-3	513-BKGDS1A	133	
183	11/9/2010 7:57	58	72	-14	513-BKGDS1A	133	
184	11/9/2010 7:57	68	72	-4	513-BKGDS1A	133	
185	11/9/2010 7:57	56	72	-16	513-BKGDS1A	133	
186	11/9/2010 7:57	50	72	-22	513-BKGDS1A	133	
187	11/9/2010 7:58	54	72	-18	513-BKGDS1A	133	
188	11/9/2010 7:58	49	72	-23	513-BKGDS1A	133	
189	11/9/2010 7:58	46	72	-26	513-BKGDS1A	133	
190	11/9/2010 7:58	42	72	-30	513-BKGDS1A	133	
191	11/9/2010 7:58	46	72	-26	513-BKGDS1A	133	
192	11/9/2010 7:58	47	72	-25	513-BKGDS1A	133	



Survey Unit: 16 Area: 989.60 m² Site Area: 707 Class: 1

Gamma Background CPM C	Dda #	Date / Time	Canan	Commo	Net	On allowed and	2	
CPM CPM CPM CPM Level (com) 33 11/9/2010 7:58 45 72 -27 513-BKGDS1A 133 134	KOR #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
14 11/9/2010 7:58 60 72 -12 513-BKGDS1A 133								
11/9/2010 7:58 56 72 -16 513-BKGD51A 133 133 134 135	193	11/9/2010 7:58	45	72	-27	513-BKGDS1A	133	
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15 11/9/2010 8:01 51 72 -21 513-BKGDS1A 133 16 11/9/2010 8:01 52 72 -20 513-BKGDS1A 133 17 11/9/2010 8:02 44 72 -28 513-BKGDS1A 133 18 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 19 11/9/2010 8:02 57 72 -15 513-BKGDS1A 133 20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	213	11/9/2010 8:01	29	72	-43	513-BKGDS1A	133	
16 11/9/2010 8:01 52 72 -20 513-BKGDS1A 133 17 11/9/2010 8:02 44 72 -28 513-BKGDS1A 133 18 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 19 11/9/2010 8:02 57 72 -15 513-BKGDS1A 133 20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	214	11/9/2010 8:01	55	72	-17	513-BKGDS1A	133	
17 11/9/2010 8:02 44 72 -28 513-BKGDS1A 133 18 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 19 11/9/2010 8:02 57 72 -15 513-BKGDS1A 133 20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	215	11/9/2010 8:01	51	72	-21	513-BKGDS1A	133	
18 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 19 11/9/2010 8:02 57 72 -15 513-BKGDS1A 133 20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	216	11/9/2010 8:01	52	72	-20	513-BKGDS1A	133	
19 11/9/2010 8:02 57 72 -15 513-BKGDS1A 133 20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	217	11/9/2010 8:02	44	72	-28	513-BKGDS1A	133	
20 11/9/2010 8:02 50 72 -22 513-BKGDS1A 133 21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	218	11/9/2010 8:02	50	72	-22	513-BKGDS1A	133	
21 11/9/2010 8:02 53 72 -19 513-BKGDS1A 133 22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	219	11/9/2010 8:02	57	72	-15	513-BKGDS1A	133	
22 11/9/2010 8:02 74 72 2 513-BKGDS1A 133 23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	220	11/9/2010 8:02	50	72	-22	513-BKGDS1A	133	
23 11/9/2010 8:02 64 72 -8 513-BKGDS1A 133	221	11/9/2010 8:02	53	72	-19	513-BKGDS1A	133	
	222	11/9/2010 8:02	74	72	2	513-BKGDS1A	133	
24 11/9/2010 8:02 80 72 8 513-BKGDS1A 133	223	11/9/2010 8:02	64	72	-8	513-BKGDS1A	133	
	224	11/9/2010 8:02	80	72	8	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	Investigation Level (cpm)	Comments
225	11/9/2010 8:04	46	72	-26	513-BKGDS1A	133	
226	11/9/2010 8:04	30	72	-42	513-BKGDS1A	133	
227	11/9/2010 8:04	65	72	-7	513-8KGDS1A	133	
228	11/9/2010 8:04	50	72	-22	513-BKGDS1A	133	
229	11/9/2010 8:04	66	72	-6	513-BKGDS1A	133	
230	11/9/2010 8:04	66	72	-6	513-BKGDS1A	133	
231	11/9/2010 8:04	80	72	8	513-BKGDS1A	133	
232	11/9/2010 8:04	62	72	-10	513-BKGDS1A	133	100011 1100012
233	11/9/2010 8:05	61	72	-11	513-BKGDS1A	133	
234	11/9/2010 8:05	52	72	-20	513-BKGDS1A	133	
235	11/9/2010 8:05	55	72	-17	513-BKGDS1A	133	
236	11/9/2010 8:05	72	72	0	513-BKGDS1A	133	
237	11/9/2010 8:05	61	72	-11	513-BKGDS1A	133	
238	11/9/2010 8:05	50	72	-22	513-BKGDS1A	133	
239	11/9/2010 8:05	47	72	-25	513-BKGDS1A	133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
240	11/9/2010 8:05	61	72	-11	513-BKGDS1A	133	
241	11/9/2010 8:05	56	72	-16	513-BKGDS1A	133	
242	11/9/2010 8:06	67	72	-5	513-BKGDS1A	133	
243	11/9/2010 8:06	79	72	7	513-BKGDS1A	133	
244	11/9/2010 8:06	93	72	21	513-BKGDS1A	133	
245	11/9/2010 8:06	81	72	9	513-BKGDS1A	133	
246	11/9/2010 8:07	25	72	-47	513-BKGDS1A	133	
247	11/9/2010 8:07	35	72	-37	513-BKGDS1A	133	
248	11/9/2010 8:07	45	72	-27	513-BKGDS1A	133	
249	11/9/2010 8:07	38	72	-34	513-BKGDS1A	133	
250	11/9/2010 8:07	65	72	-7	513-BKGDS1A	133	
251	11/9/2010 8:07	68	72	-4	513-BKGDS1A	133	
252	11/9/2010 8:07	86	72	14	513-BKGDS1A	133	
253	11/9/2010 8:08	111	72	39	513-BKGDS1A	133	
254	11/9/2010 8:08	95	72	23	513-BKGDS1A	133	
255	11/9/2010 8:08	110	72	38	513-BKGDS1A	133	
256	11/9/2010 8:08	83	72	11	513-BKGDS1A	133	



TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	СРМ	CPM		Level (cpm)	The state of the s
257	11/9/2010 8:08	53	72	-19	513-BKGDS1A	133	
258	11/9/2010 8:08	81	72	9	513-BKGDS1A	133	
259	11/9/2010 8:08	75	72	3	513-BKGDS1A	133	
260	11/9/2010 8:08	67	72	-5	513-BKGDS1A	133	
261	11/9/2010 8:08	74	72	2	513-BKGDS1A	133	
262	11/9/2010 8:09	76	72	4	513-BKGDS1A	133	
263	11/9/2010 8:09	52	72	-20	513-BKGDS1A	133	
264	11/9/2010 8:09	55	72	-17	513-BKGDS1A	133	
265	11/9/2010 8:09	40	72	-32	513-BKGDS1A	133	
266	11/9/2010 8:09	62	72	-10	513-BKGDS1A	133	
267	11/9/2010 8:11	52	72	-20	513-BKGDS1A	133	
268	11/9/2010 8:11	29	72	-43	513-BKGD51A	133	
26 9	11/9/2010 8:11	40	72	-32	513-BKGDS1A	133	
270	11/9/2010 8:11	69	72	-3	513-BKGDS1A	133	
271	11/9/2010 8:11	128	72	56	513-BKGDS1A	133	
272	11/9/2010 8:11	89	72	17	513-BKGDS1A	133	
273	11/9/2010 8:12	72	72	0	513-BKGDS1A	133	
274	11/9/2010 8:12	77	72	5	513-BKGDS1A	133	
275	11/9/2010 8:12	60	72	-12	513-BKGDS1A	133	
276	11/9/2010 8:12	85	72	13	513-BKGDS1A	133	
277	11/9/2010 8:12	107	72	35	513-BKGDS1A	133	
278	11/9/2010 8:12	82	72	10	513-BKGDS1A	133	
279	11/9/2010 8:12	93	72	21	513-BKGDS1A	133	4
280	11/9/2010 8:12	79	72	7	513-BKGDS1A	133	
281	11/9/2010 8:12	60	72	-12	513-BKGDS1A	133	
282	11/9/2010 8:13	72	72	0	513-BKGDS1A	133	
283	11/9/2010 8:13	54	72	-18	513-BKGDS1A	133	
284	11/9/2010 8:13	53	72	-19	513-BKGDS1A	133	
285	11/9/2010 8:13	60	72	-12	513-BKGDS1A	133	
286	11/9/2010 8:13	85	72	13	513-BKGDS1A	133	
287	11/9/2010 8:14	40	72	-32	513-BKGDS1A	133	
288	11/9/2010 8:14	78	72	6	513-BKGDS1A	133	



Site Area: 707 Area: 989.60 m² Survey Unit: 16 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments	
289	11/9/2010 8:14	73	72	1	513-BKGDS1A	133	100	Ī
290	11/9/2010 8:14	86	72	14	513-BKGDS1A	133		Ĺ
291	11/9/2010 8:14	108	72	36	513-BKGDS1A	133		İ
292	11/9/2010 8:14	85	72	13	513-BKGDS1A	133		İ
293	11/9/2010 8:14	63	72	-9	513-BKGDS1A	133		İ
294	11/9/2010 8:15	66	72	-6	513-BKGDS1A	133		İ
295	11/9/2010 8:15	77	72	5	513-BKGDS1A	133		İ
296	11/9/2010 8:15	70	72	-2	513-BKGDS1A	133		
297	11/9/2010 8:15	87	72	15	513-BKGDS1A	133		
298	11/9/2010 8:15	56	72	-16	513-BKGDS1A	133		
299	11/9/2010 8:15	64	72	-8	513-BKGDS1A	133	and an analysis of the second	İ
300	11/9/2010 8:15	66	72	-6	513-BKGDS1A	133		
301	11/9/2010 8:15	85	72	13	513-BKGDS1A	133		
302	11/9/2010 8:15	83	72	11	513-BKGDS1A	133		İ
303	11/9/2010 8:16	68	72	-4	513-BKGDS1A	133		İ
304	11/9/2010 8:16	72	72	0	513-BKGDS1A	133		İ
305	11/9/2010 8:16	77	72	5	513-BKGDS1A	133		ĺ
306	11/9/2010 8:16	94	72	22	513-BKGDS1A	133		ĺ
307	11/9/2010 8:17	38	72	-34	513-BKGDS1A	133		İ
308	11/9/2010 8:17	39	72	-33	513-BKGDS1A	133		ĺ
309	11/9/2010 8:17	49	72	-23	513-BKGDS1A	133		i
310	11/9/2010 8:17	69	72	-3	513-BKGDS1A	133		1
311	11/9/2010 8:17	60	72	-12	513-BKGDS1A	133		İ
312	11/9/2010 8:17	92	72	20	513-BKGDS1A	133		i
313	11/9/2010 8:17	63	72	-9	513-BKGDS1A	133		ĺ
314	11/9/2010 8:18	64	72	-8	513-BKGDS1A	133		İ
315	11/9/2010 8:18	94	72	22	513-BKGDS1A	133	A. A. A. A. A. A. A. A. A. A. A. A. A. A	ĺ
316	11/9/2010 8:18	81	72	9	513-BKGDS1A	133		1
317	11/9/2010 8:18	73	72	1	513-BKGDS1A	133		1
318	11/9/2010 8:18	78	72	6	513-BKGDS1A	133		1
319	11/9/2010 8:18	78	72	6	513-BKGD\$1A	133		(
320	11/9/2010 8:18	87	72	15	513-BKGDS1A	133		1



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
321	11/9/2010 8:18	87	72	15	513-BKGDS1A	133	
322	11/9/2010 8:19	63	72	-9	513-BKGDS1A	133	2/10 PA
323	11/9/2010 8:19	66	72	-6	513-BKGDS1A	133	
324	11/9/2010 8:19	75	72	3	513-BKGDS1A	133	7020
325	11/9/2010 8:19	75	72	3	513-BKGDS1A	133	
326	11/9/2010 8:19	68	72	-4	513-BKGDS1A	133	
327	11/9/2010 8:20	67	72	-5	513-BKGDS1A	133	
328	11/9/2010 8:20	24	72	-48	513-BKGDS1A	133	
329	11/9/2010 8:20	50	72	-22	513-BKGDS1A	133	
330	11/9/2010 8:20	90	72	18	513-BKGDS1A	133	
331	11/9/2010 8:20	73	72	1	513-BKGDS1A	133	
332	11/9/2010 8:20	81	72	9	513-BKGDS1A	133	
333	11/9/2010 8:20	98	72	26	513-BKGDS1A	133	
334	11/9/2010 8:21	83	72	11	513-BKGDS1A	133	
335	11/9/2010 8:21	82	72	10	513-BKGDS1A	133	
336	11/9/2010 8:21	59	72	-13	513-BKGDS1A	133	
337	11/9/2010 8:21	63	72	-9	513-BKGDS1A	133	
338	11/9/2010 8:21	45	72	-27	513-BKGDS1A	133	
339	11/9/2010 8:21	53	72	-19	513-BKGDS1A	133	
340	11/9/2010 8:21	73	72	1	513-BKGDS1A	133	
341	11/9/2010 8:21	68	72	-4	513-BKGDS1A	133	1 N 20 03 04 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
342	11/9/2010 8:21	61	72	-11	513-BKGDS1A	133	
343	11/9/2010 8:22	65	72	-7	513-BKGDS1A	133	
344	11/9/2010 8:22	54	72	-18	513-BKGDS1A	133	
345	11/9/2010 8:22	72	72	0	513-BKGDS1A	133	
346	11/9/2010 8:23	21	72	-51	513-BKGDS1A	133	
347	11/9/2010 8:23	47	72	-25	513-BKGDS1A	133	
348	11/9/2010 8:23	30	72	-42	513-BKGDS1A	133	
349	11/9/2010 8:23	40	72	-32	513-BKGDS1A	133	THE RESERVE OF THE PARTY OF THE
350	11/9/2010 8:23	31	72	-41	513-BKGDS1A	133	
351	11/9/2010 8:23	38	72	-34	513-BKGDS1A	133	
352	11/9/2010 8:23	34	72	-38	513-BKGDS1A	133	



TETRATECH EC, INC. Gamma Scan Measurement Report Sun Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
353	11/9/2010 8:23	44	72	-28	513-BKGDS1A	133		Ī
354	11/9/2010 8:24	49	72	-23	513-BKGDS1A	133		ĺ
355	11/9/2010 8:24	86	72	14	513-BKGDS1A	133		I
356	11/9/2010 8:24	75	72	3	513-BKGDS1A	133		Ì
357	11/9/2010 8:24	117	72	45	513-BKGDS1A	133		Ì
358	11/9/2010 8:24	86	72	14	513-BKGDS1A	133		Ì
359	11/9/2010 8:24	75	72	3	513-BKGDS1A	133		İ
360	11/9/2010 8:24	68	72	-4	513-BKGDS1A	133		Ì
361	11/9/2010 8:24	57	72	-15	513-BKGDS1A	133		Ì
362	11/9/2010 8:24	64	72	-8	513-BKGDS1A	133		Ì
363	11/9/2010 8:25	75	72	3	513-BKGDS1A	133		Ì
364	11/9/2010 8:25	73	72	1	513-BKGDS1A	133		Ĺ
365	11/9/2010 8:25	32	72	-40	513-BKGDS1A	133		K
366	11/9/2010 8:25	50	72	-22	513-BKGDS1A	133		ĺ
367	11/9/2010 8:26	63	72	-9	513-BKGDS1A	133	722	1
368	11/9/2010 8:26	78	72	6	513-BKGDS1A	133		ĺ
369	11/9/2010 8:26	53	72	-19	513-BKGDS1A	133		ĺ
370	11/9/2010 8:26	56	72	-16	513-BKGDS1A	133		ĺ
371	11/9/2010 8:26	58	72	-14	513-BKGDS1A	133		1
372	11/9/2010 8:26	51	72	-21	513-BKGDS1A	133		ĺ
373	11/9/2010 8:26	51	72	-21	513-BKGDS1A	133		1
374	11/9/2010 8:26	63	72	-9	513-BKGDS1A	133		İ
375	11/9/2010 8:27	51	72	-21	513-BKGDS1A	133		i
376	11/9/2010 8:27	60	72	-12	513-BKGDS1A	133		1
377	11/9/2010 8:27	50	72	-22	513-BKGDS1A	133		1
378	11/9/2010 8:27	88	72	16	513-BKGDS1A	133	THE STREET SHOWS THE STREET	1
379	11/9/2010 8:27	79	72	7	513-BKGDS1A	133		1
380	11/9/2010 8:27	77	72	5	513-BKGDS1A	133		i
381	11/9/2010 8:27	51	72	-21	513-BKGDS1A	133		1
382	11/9/2010 8:27	46	72	-26	513-BKGDS1A	133		1
383	11/9/2010 8:27	68	72	-4	513-BKGDS1A	133		1
384	11/9/2010 8:28	53	72	-19	513-BKGDS1A	133	17 - 17 - 17 - 17 - 17 - 17 - 17 - 17 -	f



Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
385	11/9/2010 8:28	54	72	-18	513-BKGDS1A	133	
386	11/9/2010 8:29	49	72	-23	513-BKGDS1A	133	
387	11/9/2010 8:29	34	72	-38	513-BKGDS1A	133	
388	11/9/2010 8:29	54	72	-18	513-BKGDS1A	133	
389	11/9/2010 8:29	47	72	-25	513-BKGDS1A	133	
390	11/9/2010 8:29	49	72	-23	513-BKGDS1A	133	7/2
391	11/9/2010 8:29	68	72	-4	513-BKGDS1A	133	
392	11/9/2010 8:29	72	72	0	513-BKGDS1A	133	
393	11/9/2010 8:29	90	72	18	513-BKGDS1A	133	
394	11/9/2010 8:30	103	72	31	513-BKGDS1A	133	
395	11/9/2010 8:30	71	72	-1	513-BKGDS1A	133	
396	11/9/2010 8:30	81	72	9	513-BKGDS1A	133	
397	11/9/2010 8:30	105	72	33	513-BKGDS1A	133	
398	11/9/2010 8:30	74	72	2	513-BKGDS1A	133	
399	11/9/2010 8:30	90	72	18	513-BKGDS1A	133	
400	11/9/2010 8:30	82	72	10	513-BKGDS1A	133	
401	11/9/2010 8:30	73	72	1	513-BKGDS1A	133	PACIFIC STATE OF THE STATE OF T
402	11/9/2010 8:30	49	72	-23	513-BKGDS1A	133	Water Indicates And Dec 200-10-10-
403	11/9/2010 8:31	22	72	-50	513-BKGDS1A	133	3. 3.000 (191)
404	11/9/2010 8:31	44	72	-28	513-BKGDS1A	133	A STATE OF THE STA
405	11/9/2010 8:31	50	72	-22	513-BKGDS1A	133	
406	11/9/2010 8:31	81	72	9	513-BKGDS1A	133	
407	11/9/2010 8:32	74	72	2	513-BKGDS1A	133	
408	11/9/2010 8:32	69	72	-3	513-BKGDS1A	133	
409	11/9/2010 8:32	55	72	-17	513-BKGDS1A	133	
410	11/9/2010 8:32	83	72	11	513-BKGDS1A	133	
411	11/9/2010 8:32	77	72	5	513-BKGDS1A	133	
412	11/9/2010 8:32	60	72	-12	513-BKGDS1A	133	
413	11/9/2010 8:32	58	72	-14	513-BKGDS1A	133	
414	11/9/2010 8:32	70 ·	72	-2	513-BKGDS1A	133	
415	11/9/2010 8:33	86	72	14	513-BKGDS1A	133	
416	11/9/2010 8:33	64	72	-8	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

						Manager and the		-
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
417	11/9/2010 8:33	48	72	-24	513-BKGDS1A	133		ĺ
418	11/9/2010 8:33	55	72	-17	513-BKGDS1A	133		
419	11/9/2010 8:33	49	72	-23	513-BKGDS1A	133		ı
420	11/9/2010 8:33	59	72	-13	513-BKGDS1A	133		
421	11/9/2010 8:34	62	72	-10	513-BKGDS1A	133		
422	11/9/2010 8:34	57	72	-15	513-BKGDS1A	133		
423	11/9/2010 8:34	48	72	-24	513-BKGDS1A	133		
424	11/9/2010 8:35	50	72	-22	513-BKGDS1A	133		
425	11/9/2010 8:35	53	72	-19	513-BKGDS1A	133	1 2453 80 OEL 8 OO 8	
426	11/9/2010 8:35	57	72	-15	513-BKGDS1A	133	assume y -	
427	11/9/2010 8:35	70	72	-2	513-BKGD51A	133	· Property of the Control of the Con	ı
428	11/9/2010 8:35	96	72	24	513-BKGDS1A	133		6
429	11/9/2010 8:35	101	72	29	513-BKGDS1A	133		K
430	11/9/2010 8:35	117	72	45	513-BKGDS1A	133		ı
431	11/9/2010 8:35	109	72	37	513-BKGDS1A	133		İ
432	11/9/2010 8:35	108	72	36	513-BKGDS1A	133		İ
433	11/9/2010 8:36	115	72	43	513-BKGDS1A	133		İ
434	11/9/2010 8:36	62	72	-10	513-BKGDS1A	133		ı
435	11/9/2010 8:36	90	72	18	513-BKGDS1A	133		ĺ
436	11/9/2010 8:36	83	72	11	513-BKGDS1A	133		ĺ
437	11/9/2010 8:36	79	72	7	513-BKGDS1A	133		İ
438	11/9/2010 8:36	77	72	5	513-BKGDS1A	133		Ì
439	11/9/2010 9:22	44	72	-28	513-BKGDS1A	133		ĺ
440	11/9/2010 9:22	55	72	-17	513-BKGDS1A	133		ĺ
441	11/9/2010 9:22	87	72	15	513-BKGDS1A	133		ĺ
442	11/9/2010 9:22	94	72	22	513-BKGDS1A	133		ĺ
443	11/9/2010 9:22	62	72	-10	513-BKGDS1A	133	2000	ĺ
444	11/9/2010 9:22	69	72	-3	513-BKGDS1A	133		Ī
445	11/9/2010 9:22	68	72	-4	513-BKGDS1A	133		1
446	11/9/2010 9:23	64	72	-8	513-BKGDS1A	133		1
447	11/9/2010 9:23	72	72	0	513-BKGDS1A	133		
448	11/9/2010 9:23	85	72	13	513-BKGDS1A	133		1°



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
449	11/9/2010 9:23	66	72	-6	513-BKGDS1A	133	
450	11/9/2010 9:23	86	72	14	513-BKGDS1A	133	
451	11/9/2010 9:23	132	72	60	513-BKGDS1A	133	
452	11/9/2010 9:23	105	72	33	513-BKGDS1A	133	
453	11/9/2010 9:23	74	72	2	513-BKGDS1A	133	
454	11/9/2010 9:23	78	72	6	513-BKGDS1A	133	
455	11/9/2010 9:24	60	72	-12	513-BKGDS1A	133	
456	11/9/2010 9:24	80	72	8	513-BKGDS1A	133	
457	11/9/2010 9:24	40	72	-32	513-BKGDS1A	133	
458	11/9/2010 9:25	53	72	-19	513-BKGDS1A	133	- 2 30
459	11/9/2010 9:25	51	72	-21	513-BKGDS1A	133	
460	11/9/2010 9:25	50	72	-22	513-BKGDS1A	133	
461	11/9/2010 9:25	61	72	-11	513-BKGDS1A	133	
462	11/9/2010 9:25	57	72	-15	513-BKGDS1A	133	
463	11/9/2010 9:25	67	72	- 5	513-BKGDS1A	133	· ·
464	11/9/2010 9:25	69	72	-3	513-BKGD\$1A	133	
465	11/9/2010 9:25	71	72	-1	513-BKGDS1A	133	
466	11/9/2010 9:25	49	72	-23	513-BKGDS1A	133	
467	11/9/2010 9:26	53	72	-19	513-BKGDS1A	133	11 32-37
468	11/9/2010 9:26	79	72	7	513-BKGDS1A	133	
469	11/9/2010 9:26	51	72	-21	513-BKGDS1A	133	
470	11/9/2010 9:26	80	72	8	513-BKGDS1A	133	
471	11/9/2010 9:26	98	72	26	513-BKGDS1A	133	
472	11/9/2010 9:26	119	72	47	513-BKGDS1A	133	
473	11/9/2010 9:26	106	72	34	513-BKGDS1A	133	
474	11/9/2010 9:26	107	72	35	513-BKGDS1A	133	
475	11/9/2010 9:30	40	72	-32	513-BKGDS1A	133	
476	11/9/2010 9:30	78	72	6	513-BKGDS1A	133	
4 7 7	11/9/2010 9:30	86	72	14	513-BKGDS1A	133	
478	11/9/2010 9:30	64	72	-8	513-BKGDS1A	133	
479	11/9/2010 9:30	89	72	17	513-BKGDS1A	133	
480	11/9/2010 9:30	93	72	21	513-BKGDS1A	133	



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

rug #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
481	11/9/2010 9:31	51	72	-21	513-BKGDS1A	133	
482	11/9/2010 9:31	64	72	-8	513-BKGDS1A	133	
483	11/9/2010 9:31	97	72	25	513-BKGDS1A	133	
484	11/9/2010 9:31	110	72	38	513-BKGDS1A	133	
485	11/9/2010 9:31	84	72	12	513-BKGDS1A	133	
486	11/9/2010 9:31	79	72	7	513-BKGDS1A	133	
487	11/9/2010 9:31	67	72	-5	513-BKGDS1A	133	
488	11/9/2010 9:31	57	72	-15	513-BKGDS1A	133	
489	11/9/2010 9:31	55	72	-17	513-BKGDS1A	133	
490	11/9/2010 9:32	81	72	9	513-BKGDS1A	133	
491	11/9/2010 9:32	87	72	15	513-BKGDS1A	133	100 mm mm mm mm mm mm mm mm mm mm mm mm m
492	11/9/2010 9:32	76	72	4	513-BKGDS1A	133	
493	11/9/2010 9:33	32	72	-40	513-BKGDS1A	133	
494	11/9/2010 9:34	56	72	-16	513-BKGDS1A	133	
495	11/9/2010 9:34	67	72	-5	513-BKGDS1A	133	
496	11/9/2010 9:34	64	72	-8	513-BKGDS1A	133	
497	11/9/2010 9:34	52	72	-20	513-BKGDS1A	133	
498	11/9/2010 9:34	35	72	-37	513-BKGDS1A	133	
499	11/9/2010 9:34	50	72	-22	513-BKGDS1A	133	
500	11/9/2010 9:34	67	72	-5	513-BKGDS1A	133	A STATE OF THE STA
501	11/9/2010 9:34	65	72	-7	513-BKGDS1A	133	
502	11/9/2010 9:34	77	72	5	513-BKGDS1A	133	
503	11/9/2010 9:35	66	72	-6	513-BKGDS1A	133	
504	11/9/2010 9:35	104	72	32	513-BKGDS1A	133	
505	11/9/2010 9:35	112	72	40	513-BKGDS1A	133	
506	11/9/2010 9:35	101	72	29	513-BKGDS1A	133	
507	11/9/2010 9:35	95	72	23	513-BKGDS1A	133	
508	11/9/2010 9:35	86	72	14	513-BKGDS1A	133	
509	11/9/2010 9:35	76	72	4	513-BKGDS1A	133	
510	11/9/2010 9:36	67	72	-5	513-8KGDS1A	133	
511	11/9/2010 9:36	39	72	-33	513-BKGDS1A	133	
ATT	11/3/2010 3:30	27	14	-55	313-0VQD31W	123	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	СРМ	-	Level (cpm)	
513	11/9/2010 9:36	56	72	-16	513-BKGDS1A	133	
514	11/9/2010 9:36	83	72	11	513-BKGDS1A	133	
515	11/9/2010 9:37	91	72	19	513-BKGDS1A	133	
516	11/9/2010 9:37	87	72	15	513-BKGDS1A	133	
517	11/9/2010 9:37	80	72	8	513-BKGDS1A	133	
518	11/9/2010 9:37	71	72	-1	513-BKGDS1A	133	-0.000000
519	11/9/2010 9:37	53	72	-19	513-BKGDS1A	133	
520	11/9/2010 9:37	48	72	-24	513-BKGDS1A	133	
521	11/9/2010 9:37	48	72	-24	513-BKGDS1A	133	
522	11/9/2010 9:37	83	72	11	513-BKGDS1A	133	
523	11/9/2010 9:37	72	72	0	513-BKGDS1A	133	
524	11/9/2010 9:38	66	72	-6	513-BKGDS1A	133	
525	11/9/2010 9:38	98	72	26	513-BKGDS1A	133	
526	11/9/2010 9:38	95	72	23	513-BKGDS1A	133	
527	11/9/2010 9:39	52	72	-20	513-BKGDS1A	133	
528	11/9/2010 9:39	63	72	-9	513-BKGDS1A	133	
529	11/9/2010 9:39	78	72	6	513-BKGDS1A	133	
530	11/9/2010 9:39	63	72	-9	513-BKGDS1A	133	TO THE PARTY OF TH
531	11/9/2010 9:39	70	72	-2	513-BKGDS1A	133	
532	11/9/2010 9:39	69	72	-3	513-BKGDS1A	133	2 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
533	11/9/2010 9:39	94	72	22	513-BKGDS1A	133	SAN 11.3
534	11/9/2010 9:39	76	72	4	513-BKGDS1A	133	
535	11/9/2010 9:40	73	72	1	513-BKGDS1A	133	000 000 000
536	11/9/2010 9:40	60	72	-12	513-BKGDS1A	133	200
537	11/9/2010 9:40	50	72	-22	513-BKGDS1A	133	
538	11/9/2010 9:40	75	72	3	513-BKGDS1A	133	
539	11/9/2010 9:40	60	72	-12	513-BKGDS1A	133	
540	11/9/2010 9:40	60	72	-12	513-BKGDS1A	133	
541	11/9/2010 9:40	68	72	-4	513-BKGDS1A	133	
542	11/9/2010 9:40	76	72	4	513-BKGDS1A	133	
543	11/9/2010 9:42	50	72	-22	513-BKGDS1A	133	
544	11/9/2010 9:42	7 9	72	7	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
545	11/9/2010 9:42	54	72	-18	513-BKGDS1A	133	
546	11/9/2010 9:42	73	72	1	513-BKGDS1A	133	
547	11/9/2010 9:43	57	72	-15	513-BKGDS1A	133	
548	11/9/2010 9:43	61	72	-11	513-BKGDS1A	133	
549	11/9/2010 9:43	85	72	13	513-BKGDS1A	133	
550	11/9/2010 9:43	92	72	20	513-BKGDS1A	133	
551	11/9/2010 9:43	81	72	9	513-BKGDS1A	133	
552	11/9/2010 9:43	69	72	-3	513-BKGDS1A	133	
553	11/9/2010 9:43	66	72	-6	513-BKGDS1A	133	
554	11/9/2010 9:43	86	72	14	513-BKGDS1A	133	IC 1 MISTERS
555	11/9/2010 9:43	118	72	46	513-BKGDS1A	133	
556	11/9/2010 9:44	102	72	30	513-BKGDS1A	133	11 12 12 12 12 12 12 12 12 12 12 12 12 1
557	11/9/2010 9:44	92	72	20	513-BKGDS1A	133	
558	11/9/2010 9:44	60	72	-12	513-BKGDS1A	133	
559	11/9/2010 9:45	46	72	-26	513-BKGDS1A	133	
560	11/9/2010 9:45	62	72	-10	513-BKGDS1A	133	
561	11/9/2010 9:45	91	72	19	513-BKGDS1A	133	
562	11/9/2010 9:45	82	72	10	513-BKGDS1A	133	•
563	11/9/2010 9:45	73	72	1	513-BKGDS1A	133	
564	11/9/2010 9:46	94	72	22	513-BKGDS1A	133	
565	11/9/2010 9:46	94	72	22	513-BKGDS1A	133	
566	11/9/2010 9:46	88	72	16	513-BKGDS1A	133	
567	11/9/2010 9:46	98	72	26	513-BKGDS1A	133	
568	11/9/2010 9:46	84	72	12	513-BKGDS1A	133	
569	11/9/2010 9:46	108	72	36	513-BKGDS1A	133	
570	11/9/2010 9:46	98	72	26	513-BKGDS1A	133	A THE STATE OF
571	11/9/2010 9:46	102	72	30	513-BKGDS1A	133	
572	11/9/2010 9:46	84	72	12	513-BKGDS1A	133	APT A SERVICE A
573	11/9/2010 9:47	83	72	11	513-BKGDS1A	133	
574	11/9/2010 9:47	87	72	15	513-BKGDS1A	133	
575	11/9/2010 9:48	36	72	-36	513-BKGDS1A	133	7.0.00000000000000000000000000000000000
576	11/9/2010 9:48	43	72	-29	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID*	Investigation	
_		СРМ	СРМ	CPM		Level (cpm)	
577	11/9/2010 9:48	77	72	5	513-BKGDS1A	133	
578	11/9/2010 9:48	67	72	-5	513-BKGD\$1A	133	
579	11/9/2010 9:48	54	72	-18	513-BKGDS1A	133	
580	11/9/2010 9:48	72	72	0	513-BKGDS1A	133	
581	11/9/2010 9:48	87	72	15	513-BKGDS1A	133	
582	11/9/2010 9:49	105	72	33	513-BKGDS1A	133	
583	11/9/2010 9:49	83	72	11	513-BKGDS1A	133	
584	11/9/2010 9:49	83	72	11	513-BKGDS1A	133	
585	11/9/2010 9:49	81	72	9	513-BKGDS1A	133	
586	11/9/2010 9:49	68	72	-4	513-BKGDS1A	133	
587	11/9/2010 9:49	64	72	-8	513-BKGDS1A	133	
588	11/9/2010 9:49	75	72	3	513-BKGDS1A	133	
589	11/9/2010 9:49	82	72	10	513-BKGDS1A	133	
590	11/9/2010 9:49	101	_ 72	29	513-BKGDS1A	133	
591	11/9/2010 9:50	49	72	-23	513-BKGDS1A	133	
592	11/9/2010 9:51	80	72	8	513-BKGDS1A	133	
593	11/9/2010 9:51	86	72	14	513-BKGDS1A	133	
594	11/9/2010 9:51	62	72	-10	513-BKGDS1A	133	W re-
595	11/9/2010 9:51	72	72	0	513-BKGDS1A	133	
596	11/9/2010 9:51	100	72	28	513-BKGDS1A	133	
597	11/9/2010 9:51	83	72	11	513-BKGDS1A	133	
598	11/9/2010 9:51	91	72	19	513-BKGDS1A	133	
599	11/9/2010 9:51	73	72	1	513-BKGDS1A	133	
600	11/9/2010 9:52	68	72	-4	513-BKGDS1A	133	
601	11/9/2010 9:52	80	72	8	513-BKGDS1A	133	
602	11/9/2010 9:52	79	72	7	513-BKGDS1A	133	
603	11/9/2010 9:52	72	72	0	513-BKGDS1A	133	
6 04	11/9/2010 9:52	79	72	7	513-BKGDS1A	133	
605	11/9/2010 9:52	88	72	16	513-BKGDS1A	133	
606	11/9/2010 9:53	22	72	-50	513-BKGDS1A	133	
607	11/9/2010 9:53	38	72	-34	513-BKGDS1A	133	
608	11/9/2010 9:53	96	72	24	513-BKGDS1A	133	



Survey Unit: 16 Site Area: 707 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
609	11/9/2010 9:53	66	72	-6	513-BKGDS1A	133		
610	11/9/2010 9:53	76	72	4	513-BKGDS1A	133		
611	11/9/2010 9:53	93	72	21	513-BKGDS1A	133]
612	11/9/2010 9:54	104	72	32	513-BKGDS1A	133		1
613	11/9/2010 9:54	117	72	45	513-BKGDS1A	133]
614	11/9/2010 9:54	110	72	38	513-BKGDS1A	133]
615	11/9/2010 9:54	86	72	14	513-BKGDS1A	133]
616	11/9/2010 9:54	73	72	1	513-BKGDS1A	133	V 8 W	1
617	11/9/2010 9:54	87	72	15	513-BKGDS1A	133]
618	11/9/2010 9:54	116	72	44	513-BKGDS1A	133	T a mist—ba	1
619	11/9/2010 9:54	72	72	0	513-BKGDS1A	133]
620	11/9/2010 9:54	73	72	1	513-BKGDS1A	133		1
621	11/9/2010 9:56	26	72	-46	513-BKGDS1A	133		1
622	11/9/2010 9:56	28	72	-44	513-BKGDS1A	133		٦
623	11/9/2010 9:56	58	72	-14	513-BKGDS1A	133		1
624	11/9/2010 9:56	86	72	14	513-BKGDS1A	133		٦
625	11/9/2010 9:56	112	72	40	513-BKGDS1A	133		1
626	11/9/2010 9:56	64	72	-8	513-BKGDS1A	133		Ī
627	11/9/2010 9:56	61	72	-11	513-BKGDS1A	133		Ī
628	11/9/2010 9:56	70	72	-2	513-BKGDS1A	133		Ī
629	11/9/2010 9:57	78	72	6	513-BKGDS1A	133		آ
630	11/9/2010 9:57	85	72	13	513-BKGDS1A	133		Ī
631	11/9/2010 9:57	82	72	10	513-BKGDS1A	133		
632	11/9/2010 9:57	88	72	16	513-BKGDS1A	133		Ī
633	11/9/2010 9:57	67	72	-5	513-BKGDS1A	133		Ī
634	11/9/2010 9:57	100	72	28	513-BKGDS1A	133		Ī
635	11/9/2010 9:57	75	72	3	513-BKGDS1A	133		Ī
636	11/9/2010 10:02		72	-27	513-BKGDS1A	133		
637	11/9/2010 10:02		72	-21	513-BKGDS1A	133		
638	11/9/2010 10:02		72	-3	513-BKGDS1A	133		=
639	11/9/2010 10:02		72	8	513-BKGDS1A	133		_
640	11/9/2010 10:02		72	18	513-BKGDS1A	133		-



TETRATECH EC, INC. Gamma Scan Measurement Report Stan Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

				_			
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
641	11/9/2010 10:02	70	72	-2	513-BKGDS1A	133	
642	11/9/2010 10:02	61	72	-11	513-BKGDS1A	133	
643	11/9/2010 10:02	44	72	-28	513-BKGDS1A	133	
644	11/9/2010 10:02	41	72	-31	513-BKGDS1A	133	
645	11/9/2010 10:03	35	72	-37	513-BKGDS1A	133	
646	11/9/2010 10:03	59	72	-13	513-BKGDS1A	133	Alaba I
647	11/9/2010 10:03	81	72	9	513-BKGDS1A	133	
648	11/9/2010 10:03	96	72	24	513-BKGDS1A	133	
649	11/9/2010 10:03	97	72	25	513-BKGDS1A	133	
650	11/9/2010 10:04	28	72	-44	513-BKGDS1A	133	
651	11/9/2010 10:04	38	72	-34	513-BKGDS1A	133	
652	11/9/2010 10:04	57	72	-15	513-BKGDS1A	133	
653	11/9/2010 10:04	95	72	23	513-BKGDS1A	133	
654	11/9/2010 10:04	76	72	4	513-BKGDS1A	133	
655	11/9/2010 10:04	56	72	-16	513-BKGDS1A	133	W 2 - 2 E
656	11/9/2010 10:05	81	72	9	513-BKGDS1A	133	
657	11/9/2010 10:05	60	72	-12	513-BKGDS1A	133	
658	11/9/2010 10:05	66	72	-6	513-BKGDS1A	133	
659	11/9/2010 10:05	88	72	16	513-BKGDS1A	133	
660	11/9/2010 10:05	84	72	12	513-BKGDS1A	133	
661	11/9/2010 10:05	105	72	33	513-BKGDS1A	133	
662	11/9/2010 10:05	80	72	8	513-BKGDS1A	133	
663	11/9/2010 10:05	68	72	-4	513-BKGDS1A	133	
664	11/9/2010 10:07	33	72	-39	513-BKGDS1A	133	
665	11/9/2010 10:07	35	72	-37	513-BKGDS1A	133	
666	11/9/2010 10:07	46	72	-26	513-BKGDS1A	133	
667	11/9/2010 10:07	25	72	-47	513-BKGDS1A	133	
668	11/9/2010 10:07	24	72	-48	513-BKGDS1A	133	
669	11/9/2010 10:07	78	72	6	513-BKGDS1A	133	
670	11/9/2010 10:07	74	72	2	513-BKGDS1A	133	
671	11/9/2010 10:07	70	72	-2	513-BKGDS1A	133	
672	11/9/2010 10:07	87	72	15	513-BKGDS1A	133	
					10.10.0		



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

	-						
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
673	11/9/2010 10:08	66	72	-6	513-BKGDS1A	133	
674	11/9/2010 10:08	55	72	-17	513-BKGDS1A	133	16.5348
575	11/9/2010 10:08	61	72	-11	513-BKGDS1A	133	
676	11/9/2010 10:08	61	72	-11	513-BKGDS1A	133	
677	11/9/2010 10:09	25	72	-47	513-BKGDS1A	133	
678	11/9/2010 10:09	46	72	-26	513-BKGDS1A	133	
679	11/9/2010 10:09	79	72	7	513-BKGDS1A	133	
680	11/9/2010 10:09	77	72	5	513-BKGDS1A	133	
681	11/9/2010 10:09	92	72	20	513-BKGDS1A	133	
682	11/9/2010 10:10	84	72	12	513-BKGDS1A	133	the second secon
683	11/9/2010 10:10	108	72	36	513-BKGDS1A	133	1972
684	11/9/2010 10:10	94	72	22	513-BKGDS1A	133	
685	11/9/2010 10:10	68	72	-4	513-BKGDS1A	133	
686	11/9/2010 10:10	89	72	17	513-BKGDS1A	133	
687	11/9/2010 10:10	114	72	42	513-BKGDS1A	133	
688	11/9/2010 10:10	80	72	8	513-BKGDS1A	133	
689	11/9/2010 10:10	60	72	-12	513-BKGDS1A	133	
690	11/9/2010 10:11	75	72	3	513-BKGDS1A	133	1200
691	11/9/2010 10:11	40	72	-32	513-BKGDS1A	133	
692	11/9/2010 10:11	70	72	-2	513-BKGDS1A	133	
693	11/9/2010 10:11	75	72	3	513-BKGDS1A	133	
694	11/9/2010 10:11	76	72	4	513-BKGDS1A	133	
695	11/9/2010 10:12	63	72	-9	513-BKGDS1A	133	
696	11/9/2010 10:12	65	72	-7	513-BKGDS1A	133	
697	11/9/2010 10:12	86	72	14	513-BKGDS1A	133	
698	11/9/2010 10:12	123	72	51	513-BKGDS1A	133	Western - Francisco
699	11/9/2010 10:12	102	72	30	513-BKGDS1A	133	
700	11/9/2010 10:13		72	-45	513-BKGDS1A	133	Transport Control
701	11/9/2010 10:13		72	-23	513-BKGDS1A	133	
702	11/9/2010 10:13		72	-10	513-BKGDS1A	133	
703	11/9/2010 10:13		72	11	513-BKGDS1A	133	
704	11/9/2010 10:13		72	-2	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
705	11/9/2010 10:14	81	72	9	513-BKGDS1A	133	
706	11/9/2010 10:14	72	72	0	513-BKGDS1A	133	
707	11/9/2010 10:14	88	72	16	513-BKGDS1A	133	
708	11/9/2010 10:14	89	72	17	513-BKGDS1A	133	
709	11/9/2010 10:14	87	72	15	513-BKGDS1A	133	
710	11/9/2010 10:14	80	72	8	513-BKGDS1A	133	
711	11/9/2010 10:14	63	72	-9	513-BKGDS1A	133	
712	11/9/2010 10:14	61	72	-11	513-BKGD\$1A	133	
713	11/9/2010 10:15	56	72	-16	513-BKGDS1A	133	
714	11/9/2010 10:15	47	72	-25	513-BKGDS1A	133	
715	11/9/2010 10:15	58	72	-14	513-BKGDS1A	133	
716	11/9/2010 10:16	99	72	27	513-BKGDS1A	133	
717	11/9/2010 10:16	85	72	13	513-BKGDS1A	133	
718	11/9/2010 10:16	67	72	-5	513-BKGDS1A	133	
719	11/9/2010 10:16	53	72	-19	513-BKGDS1A	133	
720	11/9/2010 10:16	62	72	-10	513-BKGDS1A	133	
721	11/9/2010 10:16	48	72	-24	513-BKGDS1A	133	
722	11/9/2010 10:16	60	72	-12	513-BKGDS1A	133	4.70% 38
723	11/9/2010 10:16	66	72	-6	513-BKGDS1A	133	
724	11/9/2010 10:17	81	72	9	513-BKGDS1A	133	
725	11/9/2010 10:17	70	72	-2	513-BKGDS1A	133	
726	11/9/2010 10:19	57	72	-15	513-BKGDS1A	133	
727	11/9/2010 10:19	28	72	-44	513-BKGDS1A	133	376.0
728	11/9/2010 10:19	57	72	-15	513-BKGDS1A	133	
729	11/9/2010 10:19	46	72	-26	513-BKGDS1A	133	
730	11/9/2010 10:19	66	72	-6	513-BKGDS1A	133	
731	11/9/2010 10:20	40	72	-32	513-BKGDS1A	133	
732	11/9/2010 10:20	57	72	-15	513-BKGDS1A	133	
733	11/9/2010 10:20	79	72	7	513-BKGDS1A	133	
734	11/9/2010 10:32	36	72	-36	513-BKGDS1A	133	
735	11/9/2010 10:32	48	72	-24	513-BKGDS1A	133	
736	11/9/2010 10:32	82	72	10	513-BKGDS1A	133	



Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
737	11/9/2010 10:32	75	72	3	513-BKGDS1A	133	
738	11/9/2010 10:33	23	72	-49	513-BKGDS1A	133	
739	11/9/2010 10:33	66	72	-6	513-BKGDS1A	133	
740	11/9/2010 10:33	79	72	7	513-BKGDS1A	133	
741	11/9/2010 10:33	94	72	22	513-BKGDS1A	133	
742	11/9/2010 10:34	108	72	36	513-BKGDS1A	133	
743	11/9/2010 10:34	87	72	15	513-BKGDS1A	133	
744	11/9/2010 10:34	72	72	0	513-BKGDS1A	133	
745	11/9/2010 10:34	83	72	11	513-BKGDS1A	133	
746	11/9/2010 10:34	97	72	25	513-BKGDS1A	133	DATE BOOK TO THE COLUMN
747	11/9/2010 10:34	113	72	41	513-BKGDS1A	133	
748	11/9/2010 10:34	86	72	14	513-BKGDS1A	133	
749	11/9/2010 10:35	24	72	-48	513-BKGDS1A	133	
750	11/9/2010 10:36	56	72	-16	513-BKGDS1A	133	
751	11/9/2010 10:36	79	72	7	513-BKGDS1A	133	
752	11/9/2010 10:36	66	72	-6	513-BKGDS1A	133	
753	11/9/2010 10:36	75	72	3	513-BKGDS1A	133	
754	11/9/2010 10:36	103	72	31	513-BKGDS1A	133	
755	11/9/2010 10:36	118	72	46	513-BKGDS1A	133	
756	11/9/2010 10:36	110	72	38	513-BKGDS1A	133	
757	11/9/2010 10:36	85	72	13	513-BKGDS1A	133	
758	11/9/2010 10:36	105	72	33	513-BKGDS1A	133	
759	11/9/2010 10:37	92	72	20	513-BKGDS1A	133	
760	11/9/2010 10:37	83	72	11	513-BKGDS1A	133	
761	11/9/2010 10:37	71	72	·1	513-BKGDS1A	133	
762	11/9/2010 10:41	65	72	-7	513-BKGDS1A	133	
763	11/9/2010 10:41		72	-23	513-BKGDS1A	133	
764	11/9/2010 10:42		72	-15	513-BKGDS1A	133	
765	11/9/2010 10:42		72	11	513-BKGDS1A	133	
766	11/9/2010 10:42		72	-5	513-BKGDS1A	133	
767	11/9/2010 10:42	-	72	-2	513-BKGDS1A	133	
768	11/9/2010 10:42		72	0	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
769	11/9/2010 10:42	CPM 71	СРМ	СРМ	E12 BYCDC1 A	Level (cpm)	
			72	-1	513-BKGDS1A	133	
770	11/9/2010 10:42	49	72	-23	513-BKGDS1A	133	
771	11/9/2010 10:42	65	72	-7	513-BKGDS1A	133	
772	11/9/2010 10:43	46	72	-26	513-BKGDS1A	133	
773	11/9/2010 10:43	58	72	-14	513-BKGDS1A	133	
774	11/9/2010 10:43	94	72	22	513-BKGDS1A	133	
775	11/9/2010 10:44	105	72	33	513-BKGDS1A	133	
776	11/9/2010 10:44	77	72	5	513-BKGDS1A	133	
777	11/9/2010 10:44	64	72	-8	513-BKGDS1A	133	
778	11/9/2010 10:44	88	72	16	513-BKGDS1A	133	
779	11/9/2010 10:44	100	72	28	513-BKGDS1A	133	New York
780	11/9/2010 10:44	107	72	35	513-BKGDS1A	133	
781	11/9/2010 10:44	106	72	34	513-BKGDS1A	133	
782	11/9/2010 10:44	89	72	17	513-BKGDS1A	133	
783	11/9/2010 10:45	112	72	40	513-BKGDS1A	133	
784	11/9/2010 10:45	26	72	-46	513-BKGDS1A	133	
785	11/9/2010 10:45	48	72	-24	513-BKGDS1A	133	
786	11/9/2010 10:46	64	72	-8	513-BKGDS1A	133	A M
787	11/9/2010 10:46	81	72	9	513-BKGDS1A	133	
788	11/9/2010 10:46	76	72	4	513-BKGDS1A	133	
789	11/9/2010 10:46	71	72	-1	513-BKGDS1A	133	
790	11/9/2010 10:46	80	72	8	513-BKGDS1A	133	
791	11/9/2010 10:46	99	72	27	513-BKGDS1A	133	
792	11/9/2010 10:46	93	72	21	513-BKGDS1A	133	
793	11/9/2010 10:47	32	72	-40	513-BKGDS1A	133	
794	11/9/2010 10:47	75	72	3	513-BKGDS1A	133	
795	11/9/2010 10:47	70	72	-2	513-BKGDS1A	133	
796	11/9/2010 10:47	60	72	-12	513-BKGDS1A	133	
797	11/9/2010 10:47						
4 44		81	72	9	513-BKGDS1A	133	
798	11/9/2010 10:47	73	72	1	513-BKGDS1A	133	
799	11/9/2010 10:48	101	72	29	513-BKGDS1A	133	
800	11/9/2010 10:48	98	72	26	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
801	11/9/2010 10:48	75	72	3	513-BKGDS1A	133	
802	11/9/2010 10:48	67	72	-5	513-BKGDS1A	133	
803	11/9/2010 10:49	50	72	-22	513-BKGDS1A	133	
804	11/9/2010 10:49	72	72	0	513-BKGDS1A	133	
805	11/9/2010 10:49	70	72	-2	513-BKGDS1A	133	
806	11/9/2010 10:49	67	72	-5	513-BKGDS1A	133	
807	11/9/2010 10:49	78	72	6	513-BKGDS1A	133	
808	11/9/2010 10:49	103	72	31	513-BKGDS1A	133	
809	11/9/2010 10:55	86	72	14	513-BKGDS1A	133	
B10	11/9/2010 10:55	52	72	-20	513-BKGDS1A	133	
811	11/9/2010 10:55	72	72	0	513-BKGDS1A	133	
B12	11/9/2010 10:56	69	72	-3	513-BKGDS1A	133	
813	11/9/2010 10:56	72	72	0	513-BKGDS1A	133	
B14	11/9/2010 10:56	83	72	11	513-BKGDS1A	133	The second secon
815	11/9/2010 10:56	99	72	27	513-BKGDS1A	133	
816	11/9/2010 11:00	38	72	-34	513-BKGDS1A	133	
817	11/9/2010 11:00	66	72	-6	513-BKGDS1A	133	
818	11/9/2010 11:00	86	72	14	513-BKGDS1A	133	
819	11/9/2010 11:01	69	72	-3	513-BKGDS1A	133	
820	11/9/2010 11:01	80	72	8	513-BKGDS1A	133	
821	11/9/2010 11:01	20	72	-52	513-BKGDS1A	133	
822	11/9/2010 11:02	38	72	-34	513-BKGDS1A	133	
823	11/9/2010 11:02	67	72	-5	513-BKGDS1A	133	
824	11/9/2010 11:02	56	72	-16	513-BKGDS1A	133	
825	11/9/2010 11:02	78	72	6	513-BKGDS1A	133	
826	11/9/2010 11:03	29	72	-43	513-BKGDS1A	133	
827	11/9/2010 11:03		72	-12	513-BKGDS1A	133	
828	11/9/2010 11:03		72	-8	513-BKGDS1A	133	
829	11/9/2010 11:03		72	-9	513-BKGDS1A	133	
830	11/9/2010 11:03		72	-41	513-BKGDS1A	133	
831	11/9/2010 11:04		72	-24	513-BKGDS1A	133	
832	11/9/2010 11:04		72	-22	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Philippine .							
Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	СРМ	СРМ		Level (com)	
833	11/9/2010 11:04	68	72	-4	513-BKGDS1A	133	
834	11/9/2010 11:04	63	72	-9	513-BKGDS1A	133	
835	11/9/2010 11:06	57	72	-15	513-BKGDS1A	133	
836	11/9/2010 11:06	41	72	-31	513-BKGDS1A	133	1200 - Value - 100 - 100
837	11/9/2010 11:07	54	72	-18	513-BKGDS1A	133	
838	11/9/2010 11:07	69	72	-3	513-BKGDS1A	133	
839	11/9/2010 11:24	56	72	-16	513-BKGDS1A	133	
840	11/9/2010 11:25	49	72	-23	513-BKGDS1A	133	
841	11/9/2010 11:25	33	72	-39	513-BKGDS1A	133	
842	11/9/2010 11:25	44	72	-28	513-BKGDS1A	133	
843	11/9/2010 11:25	37	72	-35	513-BKGDS1A	133	
844	11/9/2010 11:25	44	72	-28	513-BKGDS1A	133	12
845	11/9/2010 11:25	38	72	-34	513-BKGDS1A	133	
846	11/9/2010 11:25	47	72	-25	513-BKGDS1A	133	
847	11/9/2010 11:25	68	72	-4	513-BKGDS1A	133	
848	11/9/2010 11:25	56	72	-16	513-BKGDS1A	133	
849	11/9/2010 11:27	35	72	-37	513-BKGDS1A	133	
850	11/9/2010 11:27	33	72	-39	513-BKGDS1A	133	
851	11/9/2010 11:27	34	72	-38	513-BKGDS1A	133	
852	11/9/2010 11:28	43	72	-29	513-BKGDS1A	133	
853	11/9/2010 11:28	43	72	-29	513-BKGDS1A	133	
854	11/9/2010 11:28	53	72	-19	513-BKGDS1A	133	
855	11/9/2010 11:28	65	72	-7	513-BKGDS1A	133	
856	11/9/2010 11:28	81	72	9	513-BKGDS1A	133	
857	11/9/2010 11:28	106	72	34	513-BKGDS1A	133	manage of the same
858	11/9/2010 11:28	72	72	0	513-BKGDS1A	133	N/4
859	11/9/2010 11:28	92	72	20	513-BKGDS1A	133	
860	11/9/2010 11:29	41	72	-31	513-BKGDS1A	133	
861	11/9/2010 11:29	62	72	-10	513-BKGDS1A	133	
862	11/9/2010 11:29	83	72	11	513-BKGDS1A	133	
863	11/9/2010 11:29	98	72	26	513-BKGDS1A	133	
864	11/9/2010 11:29	73	72	1	513-BKGDS1A	133	



TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
865	11/9/2010 11:29	66	72	-6	513-BKGDS1A	133		
866	11/9/2010 11:29	67	72	-5	513-BKGDS1A	133		
867	11/9/2010 11:29	58	72	-14	513-BKGDS1A	133		
868	11/9/2010 11:29	70	72	-2	513-BKGDS1A	133		
869	11/9/2010 11:30	73	72	1	513-BKGDS1A	133		
870	11/9/2010 11:30	82	72	10	513-BKGDS1A	133		
871	11/9/2010 11:30	82	72	10	513-BKGDS1A	133		
872	11/9/2010 11:30	62	72	-10	513-BKGDS1A	133	11	
873	11/9/2010 11:30	83	72	11	513-BKGDS1A	133		
874	11/9/2010 11:30	58	72	-14	513-BKGDS1A	133	N 198	
875	11/9/2010 11:30	86	72	14	513-BKGDS1A	133		
876	11/9/2010 11:30	73	72	1	513-BKGDS1A	133		1
877	11/9/2010 11:30	59	72	-13	513-BKGDS1A	133		
878	11/9/2010 11:31	71	72	-1	513-BKGDS1A	133		
879	11/9/2010 11:32	71	72	-1	513-BKGDS1A	133		
880	11/9/2010 11:32	66	72	-6	513-BKGDS1A	133		
881	11/9/2010 11:32	61	72	-11	513-BKGDS1A	133	-105	
882	11/9/2010 11:32	61	72	-11	513-BKGDS1A	133		
883	11/9/2010 11:32	46	72	-26	513-BKGDS1A	133		
884	11/9/2010 11:32	32	72	-40	513-BKGDS1A	133		
885	11/9/2010 11:33	35	72	-37	513-BKGDS1A	133		
886	11/9/2010 11:33	27	72	-45	513-BKGDS1A	133		
887	11/9/2010 11:33	35	72	-37	513-BKGDS1A	133		
888	11/9/2010 11:33	47	72	-25	513-BKGDS1A	133		
889	11/9/2010 11:33	47	72	-25	513-BKGDS1A	133		
890	11/9/2010 11:33	68	72	-4	513-BKGDS1A	133		1
891	11/9/2010 11:33	49	72	-23	513-BKGDS1A	133	1 2 22 38	
892	11/9/2010 11:33		72	-29	513-BKGDS1A	133		
893	11/9/2010 11:34	52	72	-20	513-BKGDS1A	133]
894	11/9/2010 11:34	63	72	-9	513-BKGDS1A	133		
895	11/9/2010 11:34		72	0	513-BKGDS1A	133		K
896	11/9/2010 11:34	55	72	-17	513-BKGDS1A	133		1



Survey Unit: 16 Class: 1 Site Area: 707 Area: 989.60 m²

						45.55	
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
897	11/9/2010 11:34	57	72	-15	513-BKGDS1A	133	
898	11/9/2010 11:34	52	72	-20	513-BKGDS1A	133	
899	11/9/2010 11:34	64	72	-8	513-BKGDS1A	133	
900	11/9/2010 11:34	59	72	-13	513-BKGDS1A	133	
901	11/9/2010 11:34	74	72	2	513-BKGDS1A	133	
902	11/9/2010 11:35	68	72	-4	513-BKGDS1A	133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
903	11/9/2010 11:35	60	72	-12	513-BKGDS1A		
_						133	
904	11/9/2010 11:35	41	72	-31	513-BKGDS1A	133	
905	11/9/2010 11:35	57	72	-15	513-BKGDS1A	133	
906	11/9/2010 11:35	96	72	24	513-BKGDS1A	133	
907	11/9/2010 11:35	66	72	-6	513-BKGDS1A	133	
908	11/9/2010 11:35	46	72	-26	513-BKGDS1A	133	
909	11/9/2010 11:35	71	72	-1	513-BKGDS1A	133	
910	11/9/2010 11:36	55	72	-17	513-BKGDS1A	133	
911	11/9/2010 11:36	45	72	-27	513-BKGDS1A	133	
912	11/9/2010 11:36	48	72	-24	513-BKGDS1A	133	
913	11/9/2010 11:36	38	72	-34	513-BKGDS1A	133	
914	11/9/2010 11:36	39	72	-33	513-BKGDS1A	133	11045.00.21.31
915	11/9/2010 11:36	41	72	-31	513-BKGDS1A	133	#50 F S S S S S S S S S S S S S S S S S S
916	11/9/2010 11:36	76	72	4	513-BKGDS1A	133	
917	11/9/2010 11:36	65	72	-7	513-BKGDS1A	133	
918	11/9/2010 11:36	48	72	-24	513-BKGDS1A	133	
919	11/9/2010 11:37	41	72	-31	513-BKGDS1A	133	
920	11/9/2010 11:37	48	72	-24	513-BKGDS1A	133	
921	11/9/2010 11:37	39	72	-33	513-BKGDS1A	133	
922	11/9/2010 11:38	53	72	-19	513-BKGDS1A	133	
923	11/9/2010 11:38	42	72	-30	513-BKGDS1A	133	
924	11/9/2010 11:38	41	72	-31	513-BKGDS1A	133	
925	11/9/2010 11:38	52	72	-20	513-BKGDS1A	133	
926	11/9/2010 11:38	55	72	-17	513-BKGDS1A	133	
927	11/9/2010 11:38	33	72	-39	513-BKGDS1A	133	
928	11/9/2010 11:38	50	72	-22	513-BKGDS1A	133	
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Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	lnvestigation Level (cpm)	Comments
929	11/9/2010 11:38	40	72	-32	513-BKGDS1A	133	
930	11/9/2010 11:39	40	72	-32	513-BKGDS1A	133	
931	11/9/2010 11:39	50	72	-22	513-BKGDS1A	133	
932	11/9/2010 11:39	100	72	28	513-BKGDS1A	133	
933	11/9/2010 11:39	78	72	6	513-BKGDS1A	133	
934	11/9/2010 11:39	90	72	18	513-BKGDS1A	133	
935	11/9/2010 11:39	115	72	43	513-BKGDS1A	133	
936	11/9/2010 11:39	103	72	31	513-BKGDS1A	133	A AND
937	11/9/2010 11:39	98	72	26	513-BKGDS1A	133	
938	11/9/2010 11:39	84	72	12	513-BKGDS1A	133	1
939	11/9/2010 11:40	95	72	23	513-BKGDS1A	133	
940	11/9/2010 11:40	74	72	2	513-BKGDS1A	133	
941	11/9/2010 11:40	77	72	5	513-BKGDS1A	133	
942	11/9/2010 11:40	85	72	13	513-BKGDS1A	133	
943	11/9/2010 11:40	67	72	-5	513-BKGDS1A	133	
944	11/9/2010 11:40	54	72	-18	513-BKGDS1A	133	
945	11/9/2010 11:40	43	72	-29	513-BKGDS1A	133	
946	11/9/2010 11:40	88	72	16	513-BKGDS1A	133	
947	11/9/2010 11:41	63	72	.9	513-BKGDS1A	133	
948	11/9/2010 11:41	62	72	-10	513-BKGDS1A	133	
949	11/9/2010 11:41	57	72	-15	513-BKGDS1A	133	
950	11/9/2010 11:41	48	72	-24	513-BKGDS1A	133	
951	11/9/2010 11:41	62	72	-10	513-BKGDS1A	133	
952	11/9/2010 11:41	50	72	-22	513-BKGDS1A	133	
953	11/9/2010 11:41	49	72	-23	513-BKGDS1A	133	
954	11/9/2010 11:41	49	72	-23	513-BKGDS1A	133	
955	11/9/2010 11:41	65	72	-7	513-BKGDS1A	133	
956	11/9/2010 11:42	87	72	15	513-BKGDS1A	133	1 Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
957	11/9/2010 11:42	90	72	18	513-BKGDS1A	133	
958	11/9/2010 11:42	66	72	-6	513-BKGDS1A	133	
959	11/9/2010 11:43	22	72	-50	513-BKGDS1A	133	
960	11/9/2010 11:43	31	72	-41	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
961	11/9/2010 11:43	58	72	-14	513-BKGDS1A	133	
962	11/9/2010 11:43	34	72	-38	513-BKGD\$1A	133	
963	11/9/2010 11:43	35	72	-37	513-BKGDS1A	133	
964	11/9/2010 11:43	42	72	-30	513-BKGDS1A	133	
965	11/9/2010 11:43	54	72	-18	513-BKGDS1A	133	
966	11/9/2010 11:44	60	72	-12	513-BKGDS1A	133	
967	11/9/2010 11:44	67	72	-5	513-BKGDS1A	133	
968	11/9/2010 11:44	81	72	9	513-BKGDS1A	133	
969	11/9/2010 11:44	79	72	7	513-BKGDS1A	133	
970	11/9/2010 11:44	74	72	2	513-BKGDS1A	133	
971	11/9/2010 11:44	52	72	-20	513-BKGDS1A	133	
972	11/9/2010 11:44	51	72	-21	513-BKGDS1A	133	
973	11/9/2010 11:44	42	72	-30	513-BKGDS1A	133	
974	11/9/2010 11:44	35	72	-37	513-BKGDS1A	133	
975	11/9/2010 11:45	50	72	-22	513-BKGDS1A	133	
976	11/9/2010 11:45	63	72	-9	513-BKGDS1A	133	
977	11/9/2010 11:45	49	72	-23	513-BKGDS1A	133	
978	11/9/2010 11:45	50	72	-22	513-BKGDS1A	133	
979	11/9/2010 11:45	65	72	-7	513-BKGDS1A	133	
980	11/9/2010 11:45	58	72	-14	513-BKGDS1A	133	
981	11/9/2010 11:45	50	72	-22	513-BKGDS1A	133	
982	11/9/2010 11:45	48	72	-24	513-BKGDS1A	133	
983	11/9/2010 11:46	54	72	-18	513-BKGDS1A	133	
984	11/9/2010 11:46	54	72	-18	513-BKGDS1A	133	
985	11/9/2010 11:46	57	72	-15	513-BKGDS1A	133	
986	11/9/2010 11:46	65	72	-7	513-BKGDS1A	133	
987	11/9/2010 11:46	49	72	-23	513-BKGDS1A	133	
988	11/9/2010 11:46	72	72	0	513-BKGD\$1A	133	
989	11/9/2010 11:46	85	72	13	513-BKGDS1A	133	
990	11/9/2010 11:46	95	72	23	513-BKGDS1A	133	
991	11/9/2010 11:46	60	72	-12	513-BKGDS1A	133	
992	11/9/2010 11:47	66	72	-6	513-BKGDS1A	133	
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Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
993	11/9/2010 11:47	64	72	-8	513-BKGDS1A	133	
994	11/9/2010 11:47	60	72	-12	513-BKGDS1A	133	
995	11/9/2010 11:47	64	72	-8	513-BKGDS1A	133	
996	11/9/2010 11:47	67	72	-5	513-BKGDS1A	133	
997	11/9/2010 11:47	54	72	-18	513-BKGDS1A	133	
998	11/9/2010 11:47	41	72	-31	513-BKGDS1A	133	
999	11/9/2010 12:38	45	72	-27	513-BKGDS1A	133	
1000	11/9/2010 12:38	58	72	-14	513-BKGDS1A	133	
1001	11/9/2010 12:38	65	72	-7	513-BKGDS1A	133	
1002	11/9/2010 12:38	40	72	-32	513-BKGDS1A	133	(V) (M) (V) (V) (V)
1003	11/9/2010 12:38	50	72	-22	513-BKGDS1A	133	
1004	11/9/2010 12:38	75	72	3	513-BKGDS1A	133	
1005	11/9/2010 12:38	85	72	13	513-BKGDS1A	133	
1006	11/9/2010 12:38	58	72	-14	513-BKGDS1A	133	
1007	11/9/2010 12:39	53	72	-19	513-BKGDS1A	133	
1008	11/9/2010 12:39	45	72	-27	513-BKGDS1A	133	
1009	11/9/2010 12:39	55	72	-17	513-BKGDS1A	133	
1010	11/9/2010 12:39	53	72	-19	513-BKGDS1A	133	
1011	11/9/2010 12:39	66	72	-6	513-BKGDS1A	133	
1012	11/9/2010 12:39	51	72	-21	513-BKGDS1A	133	
1013	11/9/2010 12:39	60	72	-12	513-BKGDS1A	133	
1014	11/9/2010 12:39	46	72	-26	513-BKGDS1A	133	
1015	11/9/2010 12:39	59	72	-13	513-BKGDS1A	133	
1016	11/9/2010 12:40	54	72	-18	513-BKGDS1A	133	40
1017	11/9/2010 12:40	45	72	-27	513-BKGDS1A	133	5 N.— P
1018	11/9/2010 12:40	73	72	1	513-BKGDS1A	133	MIRSA 22 - 23
1019	11/9/2010 12:40	66	72	-6	513-BKGDS1A	133	
1020	11/9/2010 12:40	104	72	32	513-BKGD51A	133	- 100 - 100
1021	11/9/2010 12:40	108	72	36	513-BKGDS1A	133	
1022	11/9/2010 12:40	99	72	27	513-BKGDS1A	133	
1023	11/9/2010 12:40	80	72	8	513-BKGDS1A	133	
1024	11/9/2010 12:41	57	72	-15	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Area: 989.60 m² Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1025	11/9/2010 12:41	47	72	-25	513-BKGDS1A	133	
1026	11/9/2010 12:41	62	72	-10	513-BKGDS1A	133	
1027	11/9/2010 12:41	63	72	-9	513-BKGDS1A	133	
1028	11/9/2010 12:41	48	72	-24	513-BKGDS1A	133	
1029	11/9/2010 12:41	68	72	-4	513-BKGDS1A	133	
1030	11/9/2010 12:41	55	72	-17	513-BKGDS1A		
						133	
1031	11/9/2010 12:41	61	72	-11	513-BKGDS1A	133	
1032	11/9/2010 12:41	87	72	15	513-BKGDS1A	133	
1033	11/9/2010 12:42	106	72	34	513-BKGDS1A	133	
1034	11/9/2010 12:42	54	72	-18	513-BKGDS1A	133	
1035	11/9/2010 12:42	61	72	-11	513-BKGDS1A	133	
1036	11/9/2010 12:42	65	72	-7	513-BKGDS1A	133	
1037	11/9/2010 12:42	58	72	-14	513-BKGDS1A	133	
1038	11/9/2010 12:42	31	72	-41	513-BKGDS1A	133	
1039	11/9/2010 12:43	21	72	-51	513-BKGDS1A	133	
1040	11/9/2010 12:43	52	72	-20	513-BKGDS1A	133	1969
1041	11/9/2010 12:43	67	72	-5	513-BKGDS1A	133	
1042	11/9/2010 12:43	109	72	37	513-BKGDS1A	133	100/4
1043	11/9/2010 12:44	61	72	-11	513-BKGDS1A	133	
1044	11/9/2010 12:44	94	72	22	513-BKGDS1A	133	
1045	11/9/2010 12:44	107	72	35	513-BKGDS1A	133	
1046	11/9/2010 12:44	82	72	10	513-BKGDS1A	133	
1047	11/9/2010 12:44	57	72	-15	513-BKGDS1A	133	
1048	11/9/2010 12:44	70	72	-2	513-BKGDS1A	133	
1049	11/9/2010 12:44	80	72	8	513-BKGDS1A	133	
1050	11/9/2010 12:44	67	72	-5	513-BKGD\$1A	133	
1051	11/9/2010 12:45	88	72	16	513-BKGDS1A	133	
1052	11/9/2010 12:45	83	72	11	513-BKGDS1A	133	
1053	11/9/2010 12:45	84	72	12	513-BKGDS1A	133	
1054	11/9/2010 12:45	74	72	2	513-BKGDS1A	133	
1055	11/9/2010 12:45	70	72		513-BKGD51A		
_				-2		133	Edució
1056	11/9/2010 12:45	48	72	-24	513-BKGDS1A	133	



Area: 989.60 m² Site Area: 707 **Survey Unit: 16** Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1057	11/9/2010 12:45	70	72	-2	513-BKGDS1A	133		
1058	11/9/2010 12:45	42	72	-30	513-BKGDS1A	133	- 4	
1059	11/9/2010 12:45	48	72	-24	513-BKGDS1A	133	- 1909	
1060	11/9/2010 12:46	60	72	-12	513-BKGDS1A	133		
1061	11/9/2010 12:46	55	72	-17	513-BKGDS1A	133		
1062	11/9/2010 12:46	44	72	-28	513-BKGDS1A	133		
1063	11/9/2010 12:46	47	72	-25	513-BKGDS1A	133	12	
1064	11/9/2010 12:46	53	72	-19	513-BKGDS1A	133		
1065	11/9/2010 12:46	58	72	-14	513-BKGDS1A	133		
1066	11/9/2010 12:46	56	72	-16	513-BKGDS1A	133		
1067	11/9/2010 12:46	66	72	-6	513-BKGDS1A	133	Dagsk	
1068	11/9/2010 12:47	57	72	-15	513-BKGDS1A	133	NO HERON CALLS	,
1069	11/9/2010 12:47	53	72	-19	513-BKGDS1A	133		(
1070	11/9/2010 12:47	53	72	-19	513-BKGDS1A	133	Language and the second	
1071	11/9/2010 12:47	42	72	-30	513-BKGDS1A	133		
1072	11/9/2010 12:47	36	72	-36	513-BKGDS1A	133		
1073	11/9/2010 12:47	28	72	-44	513-BKGDS1A	133		
1074	11/9/2010 12:47	38	72	-34	513-BKGDS1A	133		ĺ
1075	11/9/2010 12:47	28	72	-44	513-BKGDS1A	133		l
1076	11/9/2010 12:47	56	72	-16	513-BKGDS1A	133		
1077	11/9/2010 12:48	78	72	6	513-BKGDS1A	133		
1078	11/9/2010 12:48	58	72	-14	513-BKGDS1A	133		l
1079	11/9/2010 12:49	68	72	-4	513-BKGDS1A	133		I
1080	11/9/2010 12:49	38	72	-34	513-BKGDS1A	133		ĺ
1081	11/9/2010 12:49	49	72	-23	513-BKGDS1A	133		ĺ
1082	11/9/2010 12:49	46	72	-26	513-BKGDS1A	133		ı
1083	11/9/2010 12:49	29	72	-43	513-BKGDS1A	133		ĺ
1084	11/9/2010 12:49	44	72	-28	513-BKGDS1A	133		
1085	11/9/2010 12:50	48	72	-24	513-BKGDS1A	133	A real and a second second	
1086	11/9/2010 12:50	69	72	-3	513-BKGDS1A	133		
1087	11/9/2010 12:50	53	72	-19	513-BKGDS1A	133		1
1088	11/9/2010 12:50	55	72	-17	513-BKGDS1A	133		ĺ



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	СРМ	CPM		Level (cpm)	
1089	11/9/2010 12:50	30	72	-42	513-BKGDS1A	133	
1090	11/9/2010 12:50	27	72	-45	513-BKGDS1A	133	
1091	11/9/2010 12:50	49	72	-23	513-BKGDS1A	133	
1092	11/9/2010 12:50	45	72	-27	513-BKGDS1A	133	
1093	11/9/2010 12:50	43	72	-29	513-BKGDS1A	133	
1094	11/9/2010 12:51	35	72	-37	513-BKGDS1A	133	
1095	11/9/2010 12:51	53	72	-19	513-BKGDS1A	133	
1096	11/9/2010 12:51	70	72	-2	513-BKGDS1A	133	
1097	11/9/2010 12:51	69	72	-3	513-BKGDS1A	133	- Na
1098	11/9/2010 12:51	84	72	12	513-BKGDS1A	133	
1099	11/9/2010 12:51	72	72	0	513-BKGDS1A	133	
1100	11/9/2010 12:51	77	72	5	513-BKGDS1A	133	
1101	11/9/2010 12:51	57	72	-15	513-BKGDS1A	133	
1102	11/9/2010 12:51	51	72	-21	513-BKGDS1A	133	
1103	11/9/2010 12:52	48	72	-24	513-BKGDS1A	133	
1104	11/9/2010 12:52	50	72	-22	513-BKGDS1A	133	
1105	11/9/2010 12:52	32	72	-40	513-BKGDS1A	133	
1106	11/9/2010 12:52	53	72	-19	513-BKGDS1A	133	250 Mars 1
1107	11/9/2010 12:52	62	72	-10	513-BKGDS1A	133	1/2/25
1108	11/9/2010 12:52	71	72	-1	513-BKGDS1A	133	
1109	11/9/2010 12:52	76	72	4	513-BKGDS1A	133	
1110	11/9/2010 12:52	75	72	3	513-BKGDS1A	133	
1111	11/9/2010 12:53	59	72	-13	513-BKGDS1A	133	
1112	11/9/2010 12:53	55	72	-17	513-BKGDS1A	133	
1113	11/9/2010 12:53	53	72	-19	513-BKGDS1A	133	
1114	11/9/2010 12:53	5 9	72	-13	513-BKGDS1A	133	
1115	11/9/2010 12:53	58	72	-14	513-BKGDS1A	133	
1116	11/9/2010 12:53	73	72	1	513-BKGDS1A	133	
1117	11/9/2010 12:54	55	72	-17	513-BKGDS1A	133	
1118	11/9/2010 12:54	51	72	-21	513-BKGDS1A	133	
1119	11/9/2010 12:54	80	72	8	513-BKGDS1A	133	
1120	11/9/2010 12:54	87	72	15	513-BKGDS1A	133	



Area: 989.60 m² Survey Unit: 16 Class: 1 Site Area: 707

	Date / Time	Gross Gamma	Gamma	Net	Background	3σ	Comments
1121		CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
_	11/9/2010 12:54	90	72	18	513-BKGDS1A	133	
1122	11/9/2010 12:54	63	72	-9	513-BKGDS1A	133	
1123	11/9/2010 12:55	57	72	-15	513-BKGDS1A	133	
1124	11/9/2010 12:55	52	72	-20	513-BKGDS1A	133	
1125	11/9/2010 12:55	69	72	-3	513-BKGDS1A	133	
1126	11/9/2010 12:55	57	72	-15	513-BKGDS1A	133	
1127	11/9/2010 12:55	49	72	-23	513-BKGDS1A	133	
1128	11/9/2010 12:55	67	72	-5	513-BKGDS1A	133	
1129	11/9/2010 12:55	70	72	-2	513-BKGDS1A	133	
1130	11/9/2010 12:55	61	72	-11	513-BKGDS1A	133	
1131	11/9/2010 12:55	63	72	-9	513-BKGDS1A	133	
1132	11/9/2010 12:56	71	72	-1	513-BKGDS1A	133	
1133	11/9/2010 12:56	69	72	-3	513-BKGDS1A	133	
1134	11/9/2010 12:56	84	72	12	513-BKGDS1A	133	
1135	11/9/2010 12:56	68	72	-4	513-BKGDS1A	133	
1136	11/9/2010 12:56	82	72	10	513-BKGDS1A	133	
1137	11/9/2010 12:56	57	72	-15	513-BKGDS1A	133	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
1138	11/9/2010 12:56	67	72	-5	513-BKGDS1A	133	
1139	11/9/2010 12:56	76	72	4	513-BKGDS1A	133	
1140	11/9/2010 12:57	58	72	-14	513-BKGDS1A	133	
1141	11/9/2010 12:57	69	72	-3	513-BKGDS1A	133	4
1142	11/9/2010 12:57	61	72	-11	513-BKGDS1A	133	
1143	11/9/2010 12:57	65	72	-7	513-BKGDS1A	133	
1144	11/9/2010 12:57	51	72	-21	513-BKGDS1A	133	
1145	11/9/2010 12:57	64	72	-8	513-BKGDS1A	133	
1146	11/9/2010 12:57	52	72	-20	513-BKGDS1A	133	3000
1147	11/9/2010 12:57	43	72	-29	513-BKGDS1A	133	
1148	11/9/2010 12:57	65	72	-7	513-BKGDS1A	133	
1149	11/9/2010 12:58	71	72	-1	513 BKGDS1A	133	
1150	11/9/2010 12:58	54	72	-18	513-BKGDS1A	133	
1151	11/9/2010 12:58	44	72	-28	513-BKGDS1A	133	
1152	11/9/2010 12:58		72	-8	513-BKGDS1A	133	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
1153	11/9/2010 12:58	86	72	14	513-BKGDS1A	133	
1154	11/9/2010 13:00	30	72	-42	513-BKGDS1A	133	
1155	11/9/2010 13:00	50	72	-22	513-BKGDS1A	133	
1156	11/9/2010 13:00	58	72	-14	513-BKGDS1A	133	
1157	11/9/2010 13:00	54	72	-18	513-BKGDS1A	133	
1158	11/9/2010 13:00	42	72	-30	513-BKGDS1A	133	NEW W
1159	11/9/2010 13:00	42	72	-30	513-BKGDS1A	133	
1160	11/9/2010 13:00	42	72	-30	513-BKGDS1A	133	
1161	11/9/2010 13:00	60	72	-12	513-BKGDS1A	133	
1162	11/9/2010 13:00	50	72	-22	513-BKGDS1A	133	
1163	11/9/2010 13:01	45	72	-27	513-BKGDS1A	133	
1164	11/9/2010 13:01	48	72	-24	513-BKGDS1A	133	
1165	11/9/2010 13:01	90	72	18	513-BKGDS1A	133	
1166	11/9/2010 13:01	99	72	27	513-BKGDS1A	133	
1167	11/9/2010 13:01	83	72	11	513-BKGDS1A	133	
1168	11/9/2010 13:01	69	72	-3	513-BKGDS1A	133	
1169	11/9/2010 13:01	70	72	-2	513-BKGDS1A	133	3.483.0
1170	11/9/2010 13:01	64	72	-8	513-BKGDS1A	133	
1171	11/9/2010 13:02	69	72	-3	513-BKGDS1A	133	
1172	11/9/2010 13:02	64	72	-8	513-BKGDS1A	133	ANTERIOR STATE OF THE STATE OF
1173	11/9/2010 13:02	63	72	-9	513-BKGDS1A	133	
1174	11/9/2010 13:02	49	72	-23	513-BKGDS1A	133	
1175	11/9/2010 13:02	77	72	5	513-BKGDS1A	133	70 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da 182 da
1176	11/9/2010 13:02	78	72	6	513-BKGDS1A	133	
1177	11/9/2010 13:02	56	72	-16	513-BKGDS1A	133	
1178	11/9/2010 13:02	56	72	-16	513-BKGDS1A	133	
1179	11/9/2010 13:02	41	72	-31	513-BKGDS1A	133	
1180	11/9/2010 13:03	51	72	-21	513-BKGDS1A	133	
1181	11/9/2010 13:03	56	72	-16	513-BKGDS1A	133	
1182	11/9/2010 13:03	54	72	-18	513-BKGDS1A	133	
1183	11/9/2010 13:03	42	72	-30	513-BKGDS1A	133	
1184	11/9/2010 13:03	45	72	-27	513-BKGDS1A	133	The second control of the second control of



Area: 989.60 m² Class: 1 Survey Unit: 16 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1185	11/9/2010 13:03	42	72	-30	513-BKGDS1A	133	
1186	11/9/2010 13:03	35	72	-37	513-BKGDS1A	133	
1187	11/9/2010 13:03	66	72	-6	513-BKGDS1A	133	
1188	11/9/2010 13:04	56	72	-16	513-BKGDS1A	133	
1189	11/9/2010 13:04	65	72	-7	513-BKGDS1A	133	
1190	11/9/2010 13:06	27	72	-45	513-BKGDS1A	133	
1191	11/9/2010 13:06	59	72	-13	513-BKGDS1A	133	
1192	11/9/2010 13:06	58	72	-14	513-BKGDS1A	133	1995/8/9998
1193	11/9/2010 13:06	65	72	-7	513-BKGDS1A	133	
1194	11/9/2010 13:07	71	72	-1	513-BKGDS1A	133	
1195	11/9/2010 13:07	71	72	-1	513-BKGDS1A	133	
1196	11/9/2010 13:07	48	72	-24	513-BKGDS1A	133	
1197	11/9/2010 13:07	67	72	-5	513-BKGDS1A	133	Millioned St. Marini
1198	11/9/2010 13:07	61	72	-11	513-BKGDS1A	133	
1199	11/9/2010 13:07	55	72	-17	513-BKGDS1A	133	
1200	11/9/2010 13:07	35	72	-37	513-BKGDS1A	133	
1201	11/9/2010 13:07	43	72	-29	513-BKGDS1A	133	
1202	11/9/2010 13:08	49	72	-23	513-BKGDS1A	133	
1203	11/9/2010 13:08	79	72	7	513-BKGDS1A	133	
1204	11/9/2010 13:08	95	72	23	513-BKGDS1A	133	
1205	11/9/2010 13:08	65	72	-7	513-BKGDS1A	133	70.4
1206	11/9/2010 13:08	56	72	-16	513-BKGDS1A	133	
1207	11/9/2010 13:08	69	72	-3	513-BKGDS1A	133	
1208	11/9/2010 13:08	101	72	29	513-BKGDS1A	133	
1209	11/9/2010 13:08	82	72	10	513-BKGDS1A	133	
1210	11/9/2010 13:08	64	72	-8	513-BKGDS1A	133	
1211	11/9/2010 13:09	72	72	0	513-BKGDS1A	133	
1212	11/9/2010 13:09	85	72	13	513-BKGDS1A	133	
1213	11/9/2010 13:09	59	72	-13	513-BKGDS1A	133	
1214	11/9/2010 13:09	63	72	-9	513-BKGDS1A	133	
1215	11/9/2010 13:09	61	72	-11	513-BKGDS1A	133	
1216	11/9/2010 13:09	45	72	-27	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

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Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
1217	11/9/2010 13:09	70	72		P43 DVCDC4 A		
				-2	513-BKGDS1A	133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1218	11/9/2010 13:09	52	72	-20	513-BKGDS1A	133	
1219	11/9/2010 13:10	85	72	13	513-BKGDS1A	133	
1220	11/9/2010 13:10	74	72	2	513-BKGDS1A	133	
1221	11/9/2010 13:10	49	72	-23	513-BKGDS1A	133	
1222	11/9/2010 13:10	30	72	-42	513-BKGDS1A	133	
1223	11/9/2010 13:10	51	72	-21	513-BKGDS1A	133	
1224	11/9/2010 13:10	31	72	-41	513-BKGDS1A	133	
1225	11/9/2010 13:11	102	72	30	513-BKGDS1A	133	
1226	11/9/2010 13:12	40	72	-32	513-BKGDS1A	133	
1227	11/9/2010 13:12	80	72	8	513-BKGDS1A	133	
1228	11/9/2010 13:12	84	72	12	513-BKGDS1A	133	
1229	11/9/2010 13:12	85	72	13	513-BKGDS1A	133	
1230	11/9/2010 13:12	89	72	17	513-BKGDS1A	133	
1231	11/9/2010 13:12	62	72	-10	513-BKGDS1A	133	
1232	11/9/2010 13:12	70	72	-2	513-BKGDS1A	133	
1233	11/9/2010 13:12	112	72	40	513-BKGDS1A	133	
1234	11/9/2010 13:12	125	72	53	513-BKGDS1A	133	200
1235	11/9/2010 13:13	124	72	52	513-BKGDS1A	133	
1236	11/9/2010 13:13	105	72	33	513-BKGDS1A	133	N-110
1237	11/9/2010 13:13	102	72	30	513-BKGDS1A	133	
1238	11/9/2010 13:13	108	72	36	513-BKGDS1A	133	
1239	11/9/2010 13:13	90	72	18	513-BKGDS1A	133	
1240	11/9/2010 13:13	79	72	7	513-BKGDS1A	133	
1241	11/9/2010 13:13	89	72	17	513-BKGDS1A	133	7:
1242	11/9/2010 13:13	72	72	0	513-BKGDS1A	133	
1243	11/9/2010 13:14	62	72	-10	513-BKGDS1A	133	
1244	11/9/2010 13:14	60	72	-12	513-BKGDS1A	133	
1245	11/9/2010 13:14	76	72	4	513-BKGDS1A	133	
1246	11/9/2010 13:14	67	72	-5	513-BKGDS1A	133	
1247	11/9/2010 13:14	80	72	8	513-BKGDS1A	133	
1248	11/9/2010 13:14	75	72	3	513-BKGDS1A	133	



Survey Unit: 16 Class: 1 Area: 989.60 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1249	11/9/2010 13:14	62	72	-10	513-BKGDS1A	133	
1250	11/9/2010 13:14	55	72	-17	513-BKGDS1A	133	
1251	11/9/2010 13:14	54	72	-18	513-BKGDS1A	133	
1252	11/9/2010 13:15	66	72	-6	513-BKGDS1A	133	
1253	11/9/2010 13:15	70	72	-2	513-BKGDS1A	133	
1254	11/9/2010 13:15	81	72	9	513-BKGDS1A	133	
1255	11/9/2010 13:15	65	72	-7	513-BKGDS1A	133	
1256	11/9/2010 13:15	81	72	9	513-BKGDS1A	133	
1257	11/9/2010 13:15	52	72	-20	513-BKGDS1A	133	
1258	11/9/2010 13:15	47	72	-25	513-BKGDS1A	133	1 (1818)47 (19
1259	11/9/2010 13:16	30	72	-42	513-BKGDS1A	133	
1260	11/9/2010 13:16	52	72	-20	513-BKGDS1A	133	to allow to the second
1261	11/9/2010 13:16	66	72	-6	513-BKGDS1A	133	
1262	11/9/2010 13:16	62	72	-10	513-BKGDS1A	133	
1263	11/9/2010 13:16	91	72	19	513-BKGDS1A	133	
1264	11/9/2010 13:17	67	72	-5	513-BKGDS1A	133	1
1265	11/9/2010 13:17	84	72	12	513-BKGDS1A	133	
1266	11/9/2010 13:17	89	72	17	513-BKGDS1A	133	
1267	11/9/2010 13:17	65	72	-7	513-BKGDS1A	133	
1268	11/9/2010 13:17	65	72	-7	513-BKGDS1A	133	
1269	11/9/2010 13:17	74	72	2	513-BKGDS1A	133	
1270	11/9/2010 13:17	92	72	20	513-BKGDS1A	133	
1271	11/9/2010 13:17	83	72	11	513-BKGDS1A	133	
1272	11/9/2010 13:18	80	72	8	513-BKGDS1A	133	100
1273	11/9/2010 13:18	98	72	26	513-BKGDS1A	133	
1274	11/9/2010 13:18	83	72	11	513-BKGDS1A	133	
1275	11/9/2010 13:18	90	72	18	513-BKGDS1A	133	
1276	11/9/2010 13:18	98	72	26	513-BKGDS1A	133	
1277	11/9/2010 13:18	84	72	12	513-BKGDS1A	133	
1278	11/9/2010 13:18	87	72	15	513-BKGDS1A	133	
1279	11/9/2010 13:18	67	72	-5	513-BKGDS1A	133	
1280	11/9/2010 13:18	99	72	27	513-BKGDS1A	133	



Site Area: 707 **Survey Unit: 16** Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1281	11/9/2010 13:19	68	72	-4	513-BKGDS1A	133	
1282	11/9/2010 13:19	59	72	-13	513-BKGDS1A	133	
1283	11/9/2010 13:19	61	72	-11	513-BKGDS1A	133	
1284	11/9/2010 13:19	77	72	5	513-BKGDS1A	133	
1285	11/9/2010 13:19	79	72	7	513-BKGDS1A	133	
1286	11/9/2010 13:19	69	72	-3	513-BKGDS1A	133	
1287	11/9/2010 13:19	93	72	21	513-BKGDS1A	133	
1288	11/9/2010 13:19	74	72	2	513-BKGDS1A	133	
1289	11/9/2010 13:20	77	72	5	513-BKGDS1A	133	
1290	11/9/2010 13:20	67	72	-5	513-BKGDS1A	133	
1291	11/9/2010 13:20	69	72	-3	513-BKGDS1A	133	
1292	11/9/2010 13:20	53	72	-19	513-BKGDS1A	133	
1293	11/9/2010 13:40	36	72	-36	513-BKGDS1A	133	
1294	11/9/2010 13:40	49	72	-23	513-BKGDS1A	133	
1295	11/9/2010 13:40	63	72	-9	513-BKGDS1A	133	
1296	11/9/2010 13:40	62	72	-10	513-BKGDS1A	133	
1297	11/9/2010 13:40	71	72	-1	513-BKGDS1A	133	
1298	11/9/2010 13:40	66	72	-6	513-BKGDS1A	133	
1299	11/9/2010 13:40	72	72	0	513-BKGDS1A	133	
1300	11/9/2010 13:40	95	72	23	513-BKGDS1A	133	
1301	11/9/2010 13:41	77	72	5	513-BKGDS1A	133	
1302	11/9/2010 13:41	98	72	26	513-BKGDS1A	133	
1303	11/9/2010 13:41	89	72	17	513-BKGDS1A	133	
1304	11/9/2010 13:41	60	72	-12	513-BKGDS1A	133	. That is a
1305	11/9/2010 13:41	97	72	25	513-BKGDS1A	133	
1306	11/9/2010 13:41	99	72	27	513-BKGDS1A	133	
1307	11/9/2010 13:41	98	72	26	513-BKGDS1A	133	
1308	11/9/2010 13:41	90	72	18	513-BKGD\$1A	133	
1309	11/9/2010 13:41	99	72	27	513-BKGDS1A	133	
1310	11/9/2010 13:42	106	72	34	513-BKGDS1A	133	
1311	11/9/2010 13:42	79	72	7	513-BKGDS1A	133	
1312	11/9/2010 13:42	70	72	-2	513-BKGDS1A	133	



Class: 1 Area: 989.60 m² Site Area: 707 Survey Unit: 16

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1313	11/9/2010 13:42	77	72	5	513-BKGDS1A	133	
1314	11/9/2010 13:42	63	72	-9	513-BKGDS1A	133	
1315	11/9/2010 13:42	55	72	-17	513-BKGDS1A	133	
1316	11/9/2010 13:42	55	72	-17	513-BKGDS1A	133	
1317	11/9/2010 13:42	58	72	-14	513-BKGDS1A	133	
1318	11/9/2010 13:43	60	72	-12	513-BKGDS1A	133	
1319	11/9/2010 13:43	48	72	-24	513-BKGDS1A	133	
1320	11/9/2010 13:43	30	72	-42	513-BKGDS1A	133	
1321	11/9/2010 13:43	43	72	-29	513-BKGDS1A	133	
1322	11/9/2010 13:43	31	72	-41	513-BKGDS1A	133	PR 1 10 10 10 10 10 10 10 10 10 10 10 10 1
1323	11/9/2010 13:43	63	72	-9	513-BKGDS1A	133	
1324	11/9/2010 13:43	70	72	-2	513-BKGDS1A	133	
1325	11/9/2010 13:43	59	72	-13	513-BKGDS1A	133	
1326	11/9/2010 13:44	39	72	-33	513-BKGDS1A	133	
1327	11/9/2010 13:44	26	72	-46	513-BKGDS1A	133	
1328	11/9/2010 13:44	53	72	-19	513-BKGDS1A	133	
1329	11/9/2010 13:45	45	72	-27	513-BKGDS1A	133	
1330	11/9/2010 13:45	79	72	7	513-BKGDS1A	133	
1331	11/9/2010 13:45	77	72	5	513-BKGDS1A	133	
1332	11/9/2010 13:45	69	72	-3	513-BKGDS1A	133	
1333	11/9/2010 13:45	71	72	-1	513-BKGDS1A	133	
1334	11/9/2010 13:45	71	72	-1	513-BKGDS1A	133	
1335	11/9/2010 13:45	53	72	-19	513-BKGDS1A	133	
1336	11/9/2010 13:45	64	72	-8	513-BKGDS1A	133	
1337	11/9/2010 13:45	87	72	15	513-BKGDS1A	133	
1338	11/9/2010 13:46	99	72	27	513-BKGDS1A	133	100000000000000000000000000000000000000
1339	11/9/2010 13:46	80	72	8	513-BKGDS1A	133	
1340	11/9/2010 13:46	90	72	18	513-BKGDS1A	133	
1341	11/9/2010 13:46	95	72	23	513-BKGDS1A	133	
1342	11/9/2010 13:46	117	72	45	513-BKGDS1A	133	
1343	11/9/2010 13:46		72	47	513-BKGDS1A	133	
1344	11/9/2010 13:46		72	40	513-BKGDS1A	133	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
1345	11/9/2010 13:46	91	72	19	513-BKGDS1A	133	
_							
1346	11/9/2010 13:46	122	72	50	513-BKGDS1A	133	The second secon
1347	11/9/2010 13:47	113	72	41	513-BKGDS1A	133	
1348	11/9/2010 13:47	82	72	10	513-BKGDS1A	133	
1349	11/9/2010 13:47	100	72	28	513-BKGDS1A	133	
1350	11/9/2010 13:47	86	72	14	513-BKGDS1A	133	
1351	11/9/2010 13:47	99	72	27	513-BKGDS1A	133	
1352	11/9/2010 13:47	84	72	12	513-BKGDS1A	133	
1353	11/9/2010 13:47	98	72	26	513-BKGDS1A	133	
1354	11/9/2010 13:47	82	72	10	513-BKGDS1A	133	
1355	11/9/2010 13:48	71	72	-1	513-BKGDS1A	133	
1356	11/9/2010 13:48	56	72	-16	513-BKGDS1A	133	
1357	11/9/2010 13:48	64	72	-8	513-BKGDS1A	133	
1358	11/9/2010 13:49	57	72	-15	513-BKGDS1A	133	
1359	11/9/2010 13:49	58	72	-14	513-BKGDS1A	133	
1360	11/9/2010 13:49	83	72	11	513-BKGDS1A	133	
1361	11/9/2010 13:49	76	72	4	513-BKGDS1A	133	
1362	11/9/2010 13:49	86	72	14	513-BKGDS1A	133	
1363	11/9/2010 13:49	66	72	-6	513-BKGDS1A	133	
1364	11/9/2010 13:49	76	72	4	513-BKGDS1A	133	E. 77%
1365	11/9/2010 13:49	82	72	10	513-BKGDS1A	133	
1366	11/9/2010 13:49	83	72	11	513-BKGDS1A	133	
1367	11/9/2010 13:50	109	72	37	513-BKGDS1A	133	
1368	11/9/2010 13:50	90	72	18	513-BKGDS1A	133	NAME OF TAXABLE PARTY.
1369	11/9/2010 13:50	73	72	1	513-BKGDS1A	133	
1370	11/9/2010 13:50	87	72	15	513-BKGDS1A	133	
1371	11/9/2010 13:50	97	72	25	513-BKGDS1A	133	
1372	11/9/2010 13:50	75	72	3	513-BKGDS1A	133	
1373	11/9/2010 13:50	87	72	15	513-BKGDS1A	133	
1374	11/9/2010 13:50	71	72	-1	513-BKGDS1A	133	
1375	11/9/2010 13:51	68	72	-4	513-BKGDS1A	133	
1376	11/9/2010 13:51	79	72	7	513-BKGDS1A	133	
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TETRATECH EC. INC. Gamma Scan Measurement Report Bunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1377	11/9/2010 13:51	93	72	21	513-BKGDS1A	133	
1378	11/9/2010 13:51	68	72	-4	513-BKGDS1A	133	
1379	11/9/2010 13:51	46	72	-26	513-BKGDS1A	133	
1380	11/9/2010 13:51	54	72	-18	513-BKGDS1A	133	
1381	11/9/2010 13:51	86	72	14	513-BKGDS1A	133	
1382	11/9/2010 13:51	66	72	-6	513-BKGDS1A	133	
1383	11/9/2010 13:51	83	72	11	513-BKGDS1A	133	
1384	11/9/2010 13:52	67	72	-5	513-BKGDS1A	133	
1385	11/9/2010 13:52	74	72	2	513-BKGDS1A	133	
1386	11/9/2010 13:52	60	72	-12	513-BKGDS1A	133	
1387	11/9/2010 13:52	50	72	-22	513-BKGDS1A	133	V-994
1388	11/9/2010 13:52	54	72	-18	513-BKGDS1A	133	
389	11/9/2010 13:54	36	72	-36	513-BKGDS1A	133	
390	11/9/2010 13:54	52	72	-20	513-BKGDS1A	133	
391	11/9/2010 13:54	61	72	-11	513-BKGDS1A	133	
1392	11/9/2010 13:54	53	72	-19	513-BKGDS1A	133	
1393	11/9/2010 13:54	52	72	-20	513-BKGDS1A	133	
394	11/9/2010 13:55	61	72	-11	513-BKGDS1A	133	
395	11/9/2010 13:55	58	72	-14	513-BKGDS1A	133	
L396	11/9/2010 13:55	50	72	-22	513-BKGDS1A	133	
1397	11/9/2010 13:55	54	72	-18	513-BKGDS1A	133	
1398	11/9/2010 13:55	99	72	27	513-BKGDS1A	133	
1399	11/9/2010 13:55	74	72	2	513-BKGDS1A	133	
1400	11/9/2010 13:55	62	72	-10	513-BKGDS1A	133	
1401	11/9/2010 13:55	54	72	-18	513-BKGDS1A	133	
1402	11/9/2010 13:55	105	72	33	513-BKGDS1A	133	2 x x x x x x x x x x x x x x x x x x x
1403	11/9/2010 13:56	104	72	32	513-BKGDS1A	133	Table 32.5
1404	11/9/2010 13:56	87	72	15	513-BKGDS1A	133	
1405	11/9/2010 13:56	87	72	15	513-BKGDS1A	133	
1406	11/9/2010 13:56	106	72	34	513-BKGDS1A	133	
1407	11/9/2010 13:56		72	30	513-BKGDS1A	133	
1408	11/9/2010 13:56		72	32	513-8KGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

1409 11/9/2010 13:56 97 72 25 513-BKGDS1A 133	Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
1410 11/9/2010 13:56 99 72 27 513-BKGD51A 133 1411 11/9/2010 13:57 107 72 35 513-BKGD51A 133 1413 11/9/2010 13:57 82 72 10 513-BKGD51A 133 1414 11/9/2010 13:57 82 72 10 513-BKGD51A 133 1415 11/9/2010 13:57 85 72 13 513-BKGD51A 133 1416 11/9/2010 13:57 85 72 13 513-BKGD51A 133 1416 11/9/2010 13:57 85 72 13 513-BKGD51A 133 1416 11/9/2010 13:57 85 72 13 513-BKGD51A 133 1416 11/9/2010 13:57 85 72 13 513-BKGD51A 133 1416 11/9/2010 13:57 59 72 -13 513-BKGD51A 133 1417 11/9/2010 13:57 46 72 -26 513-BKGD51A 133 1418 11/9/2010 13:59 45 72 -26 513-BKGD51A 133 1419 11/9/2010 13:59 45 72 -27 513-BKGD51A 133 1420 11/9/2010 13:59 87 72 -17 513-BKGD51A 133 1420 11/9/2010 13:59 87 72 -17 513-BKGD51A 133 1422 11/9/2010 13:59 87 72 15 513-BKGD51A 133 1424 11/9/2010 13:59 87 72 15 513-BKGD51A 133 1424 11/9/2010 13:59 100 72 28 513-BKGD51A 133 1424 11/9/2010 13:59 100 72 28 513-BKGD51A 133 1424 11/9/2010 13:59 100 72 28 513-BKGD51A 133 1424 11/9/2010 13:59 100 72 28 513-BKGD51A 133 1425 11/9/2010 13:59 100 72 28 513-BKGD51A 133 1426 11/9/2010 13:59 100 72 29 513-BKGD51A 133 1426 11/9/2010 13:59 76 72 4 513-BKGD51A 133 1426 11/9/2010 13:59 78 72 6 513-BKGD51A 133 1428 11/9/2010 13:59 78 72 6 513-BKGD51A 133 1428 11/9/2010 13:59 78 72 6 513-BKGD51A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGD51A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGD51A 133 1431 11/9/2010 14:00 60 77 72 5 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGD51A			СРМ	СРМ	CPM		Level (cpm)	
1411 11/9/2010 13:57 107 72 35 513-8KGDS1A 133 1412 11/9/2010 13:57 93 72 21 513-8KGDS1A 133 1414 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1415 11/9/2010 13:57 72 72 0 513-8KGDS1A 133 1415 11/9/2010 13:57 85 72 13 513-8KGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1417 11/9/2010 13:57 59 72 -13 513-8KGDS1A 133 1418 11/9/2010 13:57 46 72 -26 513-8KGDS1A 133 1418 11/9/2010 13:58 33 72 -39 513-8KGDS1A 133 1419 11/9/2010 13:59 45 72 -27 513-8KGDS1A 133 1419 11/9/2010 13:59 45 72 -27 513-8KGDS1A 133 14120 11/9/2010 13:59 55 72 -17 513-8KGDS1A 133 1412 11/9/2010 13:59 87 72 15 513-8KGDS1A 133 14142 11/9/2010 13:59 112 72 40 513-8KGDS1A 133 14144 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1414 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1414 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1414 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1414 11/9/2010 13:59 76 72 4 513-8KGDS1A 133 1414 11/9/2010 13:59 76 72 4 513-8KGDS1A 133 1414 11/9/2010 13:59 78 72 6 513-8KGDS1A 133 1414 11/9/2010 13:59 78 72 6 513-8KGDS1A 133 1414 11/9/2010 14:00 62 72 -10 513-8KGDS1A 133 1414 11/9/2010 14:00 62 72 -10 513-8KGDS1A 133 1414 11/9/2010 14:00 62 72 -10 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -24 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -24 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -24 513-8KGDS1A 133 1414 11/9/2010 14:00 60 72 -24 513-8KGD	1409	11/9/2010 13:56	97	72	25	513-BKGDS1A	133	
1412 11/9/2010 13:57 93 72 21 513-8KGDS1A 133 1414 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1415 11/9/2010 13:57 72 72 0 513-8KGDS1A 133 1416 11/9/2010 13:57 85 72 13 513-8KGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-8KGDS1A 133 1417 11/9/2010 13:57 59 72 -13 513-8KGDS1A 133 1418 11/9/2010 13:57 46 72 -26 513-8KGDS1A 133 1419 11/9/2010 13:58 33 72 -39 513-8KGDS1A 133 1419 11/9/2010 13:59 45 72 -27 513-8KGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-8KGDS1A 133 1420 11/9/2010 13:59 55 72 -17 513-8KGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-8KGDS1A 133 1422 11/9/2010 13:59 112 72 40 513-8KGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-8KGDS1A 133 1426 11/9/2010 13:59 101 72 29 513-8KGDS1A 133 1426 11/9/2010 13:59 76 72 4 513-8KGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-8KGDS1A 133 1428 11/9/2010 14:00 62 72 -10 513-8KGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-8KGDS1A 133 1431 11/9/2010 14:00 60 77 72 5 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -3 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -3 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -3 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -3 513-8KGDS1A 133 1431 11/9/2010 14:00 60 72 -3 513-8KGDS1	1410	11/9/2010 13:56	99	72	27	513-BKGDS1A	133	
1413 11/9/2010 13:57 82 72 10 513-BKGDS1A 133 1414 11/9/2010 13:57 72 72 0 513-BKGDS1A 133 1415 11/9/2010 13:57 85 72 13 513-BKGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-BKGDS1A 133 1417 11/9/2010 13:57 82 72 10 513-BKGDS1A 133 1417 11/9/2010 13:57 59 72 -13 513-BKGDS1A 133 1418 11/9/2010 13:57 46 72 -26 513-BKGDS1A 133 1418 11/9/2010 13:58 33 72 -39 513-BKGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1420 11/9/2010 13:59 55 72 -17 513-BKGDS1A 133 1421 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1422 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1426 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1426 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1429 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1429 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1431 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1431 11/9/2010 14:00 62 72 -20 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 11/9/2010 14:00 60 72 -13 513-BKGDS1A 133 11/9/2010 14:00 60 72 -13 513-BKGDS1A 133 11/9/2010 14:00 6	1411	11/9/2010 13:57	107	72	35	513-BKGDS1A	133	
1414 11/9/2010 13:57 72 72 72 0 513-BKGDS1A 133 1415 11/9/2010 13:57 85 72 13 513-BKGDS1A 133 1416 11/9/2010 13:57 82 72 10 513-BKGDS1A 133 1417 11/9/2010 13:57 59 72 -13 513-BKGDS1A 133 1418 11/9/2010 13:57 46 72 -26 513-BKGDS1A 133 1419 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1421 11/9/2010 13:59 87 72 -17 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1433 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1434 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1438 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -12 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -24 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133	1412	11/9/2010 13:57	93	72	21	513-BKGDS1A	133	
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1416 11/9/2010 13:57 82 72 10 513-BKGDS1A 133 1417 11/9/2010 13:57 59 72 -13 513-BKGDS1A 133 1418 11/9/2010 13:57 46 72 -26 513-BKGDS1A 133 1419 11/9/2010 13:58 33 72 -39 513-BKGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1421 11/9/2010 13:59 55 72 -17 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1426 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1431 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1435 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1436 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1437 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1438 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 38 513-BKGDS1A 133	1414	11/9/2010 13:57	72	72	0	513-BKGDS1A	133	
1417 11/9/2010 13:57 59 72 -13 513-BKGDS1A 133 1418 11/9/2010 13:58 33 72 -26 513-BKGDS1A 133 1419 11/9/2010 13:58 33 72 -39 513-BKGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1421 11/9/2010 13:59 55 72 -17 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1429 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1432 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1431 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1431 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1431 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1431 11/9/2010 14:00 95 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133	1415	11/9/2010 13:57	85	72	13	513-BKGDS1A	133	
1418 11/9/2010 13:57 46 72 -26 513-BKGDS1A 133 1419 11/9/2010 13:58 33 72 -39 513-BKGDS1A 133 1420 11/9/2010 13:59 45 72 -27 513-BKGDS1A 133 1421 11/9/2010 13:59 55 72 -17 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 67 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1434 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 -12 513-BKGDS1A 133 1438 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133	1416	11/9/2010 13:57	82	72	10	513-BKGDS1A	133	
1419 11/9/2010 13:58 33 72 -39 513-BKGDS1A 133	1417	11/9/2010 13:57	59	72	-13	513-BKGDS1A	133	
1420 11/9/2010 13:59	1418	11/9/2010 13:57	46	72	-26	513-BKGDS1A	133	
1421 11/9/2010 13:59 55 72 -17 513-BKGDS1A 133 1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1432 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 -2 513-BKGDS1A 133 1438 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133	1419	11/9/2010 13:58	33	72	-39	513-BKGDS1A	133	
1422 11/9/2010 13:59 87 72 15 513-BKGDS1A 133 1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 67 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1432 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 -2 513-BKGDS1A 133 1438 11/9/2010 14:00 96 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1420	11/9/2010 13:59	45	72	-27	513-BKGDS1A	133	
1423 11/9/2010 13:59 112 72 40 513-BKGDS1A 133 1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1428 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1431 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1434 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1421	11/9/2010 13:59	55	72	-17	513-BKGDS1A	133	ME AND
1424 11/9/2010 13:59 100 72 28 513-BKGDS1A 133 1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 -4 513-BKGDS1A 133 1438 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1422	11/9/2010 13:59	87	72	15	513-BKGDS1A	133	CONTRACTOR AND CONTRA
1425 11/9/2010 13:59 101 72 29 513-BKGDS1A 133 1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1423	11/9/2010 13:59	112	72	40	513-BKGDS1A	133	
1426 11/9/2010 13:59 108 72 36 513-BKGDS1A 133 1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 44 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1424	11/9/2010 13:59	100	72	28	513-BKGDS1A	133	
1427 11/9/2010 13:59 76 72 4 513-BKGDS1A 133 1428 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 96 72 -3 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1425	11/9/2010 13:59	101	72	29	513-BKGDS1A	133	
1428 11/9/2010 13:59 78 72 6 513-BKGDS1A 133 1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1426	11/9/2010 13:59	108	72	36	513-BKGDS1A	133	
1429 11/9/2010 14:00 62 72 -10 513-BKGDS1A 133 1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1427	11/9/2010 13:59	76	72	4	513-BKGDS1A	133	
1430 11/9/2010 14:00 77 72 5 513-BKGDS1A 133 1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1428	11/9/2010 13:59	78	72	6	513-BKGDS1A	133	
1431 11/9/2010 14:00 81 72 9 513-BKGDS1A 133 1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1429	11/9/2010 14:00	62	72	-10	513-BKGDS1A	133	
1432 11/9/2010 14:00 50 72 -22 513-BKGDS1A 133 1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1430	11/9/2010 14:00	77	72	5	513-BKGDS1A	133	
1433 11/9/2010 14:00 60 72 -12 513-BKGDS1A 133 1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1431	11/9/2010 14:00	81	72	9	513-BKGDS1A	133	
1434 11/9/2010 14:00 75 72 3 513-BKGDS1A 133 1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1432	11/9/2010 14:00	50	72	-22	513-BKGDS1A	133	
1435 11/9/2010 14:00 94 72 22 513-BKGDS1A 133 1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1433	11/9/2010 14:00	60	72	-12	513-BKGDS1A	133	
1436 11/9/2010 14:00 110 72 38 513-BKGDS1A 133 1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1434	11/9/2010 14:00	75	72	3	513-BKGDS1A	133	
1437 11/9/2010 14:00 96 72 24 513-BKGDS1A 133 1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1435	11/9/2010 14:00	94	72	22	513-BKGDS1A	133	
1438 11/9/2010 14:01 69 72 -3 513-BKGDS1A 133 1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1436	11/9/2010 14:00	110	72	38	513-BKGDS1A	133	
1439 11/9/2010 14:01 83 72 11 513-BKGDS1A 133	1437	11/9/2010 14:00	96	72	24	513-BKGDS1A	133	
	1438	11/9/2010 14:01	69	72	-3	513-BKGDS1A	133	
1440 11/9/2010 14:01 88 72 16 513-BKGDS1A 133	1439	11/9/2010 14:01	83	72	11	513-BKGDS1A	133	
	1440	11/9/2010 14:01	88	72	16	513-BKGDS1A	133	T.AMP CONS.



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3g Investigation Level (com)	Comments	
1441	11/9/2010 14:01	65	72	-7	513-BKGDS1A	133		ĺ
1442	11/9/2010 14:01	63	72	-9	513-BKGDS1A	133		ĺ
1443	11/9/2010 14:01	59	72	-13	513-BKGDS1A	133		
1444	11/9/2010 14:01	60	72	-12	513-BKGDS1A	133		
1445	11/9/2010 14:01	59	72	-13	513-BKGDS1A	133		
1446	11/9/2010 14:02	64	72	-8	513-BKGDS1A	133		
1447	11/9/2010 14:02	58	72	-14	513-BKGDS1A	133		
1448	11/9/2010 14:07	57	72	-15	513-BKGDS1A	133		
1449	11/9/2010 14:07	50	72	-22	513-BKGDS1A	133		Ì
1450	11/9/2010 14:07	49	72	-23	513-BKGDS1A	133	0 10025 10.16	Ì
1451	11/9/2010 14:07	59	72	-13	513-BKGDS1A	133		ĺ
1452	11/9/2010 14:07	77	72	5	513-BKGDS1A	133		Ĺ
1453	11/9/2010 14:07	62	72	-10	513-BKGDS1A	133		
1454	11/9/2010 14:07	79	72	7	513-BKGDS1A	133		ĺ
1455	11/9/2010 14:07	85	72	13	513-BKGDS1A	133		Ì
1456	11/9/2010 14:08	61	72	-11	513-BKGDS1A	133	74-	Ì
1457	11/9/2010 14:08	66	72	-6	513-BKGDS1A	133		ĺ
1458	11/9/2010 14:08	68	72	-4	513-BKGDS1A	133	1-721	ĺ
1459	11/9/2010 14:08	78	72	6	513-BKGDS1A	133		Ì
1460	11/9/2010 14:08	76	72	4	513-BKGDS1A	133		Ì
1461	11/9/2010 14:08	108	72	36	513-BKGDS1A	133		Ì
1462	11/9/2010 14:08	96	72	24	513-BKGDS1A	133		Ì
1463	11/9/2010 14:08	82	72	10	513-BKGDS1A	133		Ì
1464	11/9/2010 14:08	101	72	29	513-BKGDS1A	133		ĺ
1465	11/9/2010 14:09	92	72	20	513-BKGDS1A	133		1
1466	11/9/2010 14:09	79	72	7	513-BKGDS1A	133		1
1467	11/9/2010 14:09	72	72	0	513-BKGDS1A	133	The second secon	1
1468	11/9/2010 14:09	84	72	12	513-BKGDS1A	133		1
1469	11/9/2010 14:09	75	72	3	513-BKGDS1A	133		j
1470	11/9/2010 14:09	92	72	20	513-BKGDS1A	133		1
1471	11/9/2010 14:09	104	72	32	513-BKGDS1A	133		T
1472	11/9/2010 14:09	89	72	17	513-BKGDS1A	133		ĺ



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

D-1- #	Data / Time	Corre	-		5 1 1		
Kag #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3o Investigation	Comments
		CPM	CPM	CPM	10	Level (cpm)	
1473	11/9/2010 14:09	87	72	15	513-BKGDS1A	133	200 m 200 m
1474	11/9/2010 14:10	84	72	12	513-BKGDS1A	133	
1475	11/9/2010 14:10	81	72	9	513-BKGDS1A	133	
1476	11/9/2010 14:10	48	72	-24	513-BKGDS1A	133	200 200
1477	11/9/2010 14:10	58	72	-14	513-BKGDS1A	133	
1478	11/9/2010 14:10	80	72	8	513-BKGDS1A	133	
1479	11/9/2010 14:12	32	72	-40	513-BKGDS1A	133	
1480	11/9/2010 14:12	69	72	-3	513-BKGDS1A	133	THE WORLD
1481	11/9/2010 14:12	85	72	13	513-BKGDS1A	133	
1482	11/9/2010 14:12	83	72	11	513-BKGDS1A	133	
1483	11/9/2010 14:13	63	72	-9	513-BKGDS1A	133	
1484	11/9/2010 14:13	99	72	27	513-BKGDS1A	133	
1485	11/9/2010 14:13	84	72	12	513-BKGDS1A	133	
1486	11/9/2010 14:13	88	72	16	513-BKGDS1A	133	
1487	11/9/2010 14:13	90	72	18	513-BKGDS1A	133	
1488	11/9/2010 14:13	94	72	22	513-BKGDS1A	133	
1489	11/9/2010 14:13	79	72	7	513-BKGDS1A	133	
1490	11/9/2010 14:13	72	72	0	513-BKGDS1A	133	
1491	11/9/2010 14:14	85	72	13	513-BKGDS1A	133	
1492	11/9/2010 14:14	60	72	-12	513-BKGDS1A	133	
1493	11/9/2010 14:14	83	72	11	513-BKGDS1A	133	
1494	11/9/2010 14:14	81	72	9	513-BKGDS1A	133	
1495	11/9/2010 14:14	70	72	-2	513-BKGDS1A	133	
1496	11/9/2010 14:14	68	72	-4	513-BKGDS1A	133	
1497	11/9/2010 14:14	62	72	-10	513-BKGDS1A	133	- *****
1498	11/9/2010 14:14	90	72	18	513-BKGDS1A	133	
1499	11/9/2010 14:14	60	72	-12	513-BKGDS1A	133	
1500	11/9/2010 14:15	62	72	-10	513-BKGDS1A	133	
1501	11/9/2010 14:15	51	72	-21	513-BKGDS1A	133	
1502	11/9/2010 14:15	68	72	-4	513-BKGDS1A	133	
1503	11/9/2010 14:15	66	72	-6	513-BKGDS1A	133	
1504	11/9/2010 14:15	60	72	-12	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1505	11/9/2010 14:15	71	72	1	513-BKGDS1A	133	
1506	11/9/2010 14:16	24	72	-48	513-BKGDS1A	133	
1507	11/9/2010 14:16	49	72	-23	513-BKGDS1A	133	
1508	11/9/2010 14:16	56	72	-16	513-BKGDS1A	133	
1509	11/9/2010 14:16	60	72	-12	513-BKGDS1A	133	
1510	11/9/2010 14:17	60	72	-12	513-BKGDS1A	133	
1511	11/9/2010 14:17	70	72	-2	513-BKGDS1A	133	
1512	11/9/2010 14:17	62	72	-10	513-BKGDS1A	133	
1513	11/9/2010 14:17	77	72	5	513-BKGDS1A	133	
1514	11/9/2010 14:17	68	72	-4	513-BKGDS1A	133	
1515	11/9/2010 14:17	88	72	16	513-BKGDS1A	133	
1516	11/9/2010 14:17	81	72	9	513-BKGDS1A	133	
1517	11/9/2010 14:17	82	72	10	513-BKGDS1A	133	
1518	11/9/2010 14:17	73	72	1	513-BKGDS1A	133	
1519	11/9/2010 14:18	81	72	9	513-BKGDS1A	133	
1520	11/9/2010 14:18	72	72	0	513-BKGDS1A	133	
1521	11/9/2010 14:18	79	72	7	513-BKGDS1A	133	
1522	11/9/2010 14:18	68	72	-4	513-BKGDS1A	133	
1523	11/9/2010 14:18	79	72	7	513-BKGDS1A	133	
1524	11/9/2010 14:18	98	72	26	513-BKGDS1A	133	
1525	11/9/2010 14:18	99	72	27	513-BKGDS1A	133	
1526	11/9/2010 14:18	74	72	2	513-BKGDS1A	133	
1527	11/9/2010 14:19	71	72	-1	513-BKGDS1A	133	
1528	11/9/2010 14:19	80	72	8	513-BKGDS1A	133	
1529	11/9/2010 14:19	95	72	23	513-BKGDS1A	133	
1530	11/9/2010 14:19	100	72	28	513-BKGDS1A	133	
1531	11/9/2010 14:19	108	72	36	513-BKGDS1A	133	
1532	11/9/2010 14:20	44	72	-28	513-BKGDS1A	133	
1533	11/9/2010 14:20	65	72	-7	513-BKGDS1A	133	
1534	11/9/2010 14:20	47	72	-25	513-BKGDS1A	133	
1535	11/9/2010 14:20	80	72	8	513-BKGDS1A	133	
1536	11/9/2010 14:20		72	-8	513-BKGDS1A	133	



Survey Unit: 16 Area: 989.60 m² Site Area: 707 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1537	11/9/2010 14:20	57	72	-15	513-BKGDS1A	133	
1538	11/9/2010 14:21	50	72	-22	513-BKGDS1A	133	
1539	11/9/2010 14:21	58	72	-14	513-BKGDS1A	133	<u> </u>
1540	11/9/2010 14:21	53	72	-19	513-BKGDS1A	133	
1541	11/9/2010 14:21	89	72	17	513-BKGDS1A	133	
1542	11/9/2010 14:21	99	72	27	513-BKGDS1A	133	
1543	11/9/2010 14:21	104	72	32	513-BKGDS1A	133	
1544	11/9/2010 14:21	81	72	9	513-BKGDS1A	133	
1545	11/9/2010 14:21	64	72	-8	513-BKGDS1A	133	
1546	11/9/2010 14:22	89	72	17	513-BKGD\$1A	133	
1547	11/9/2010 14:22	66	72	-6	513-BKGDS1A	133	
1548	11/9/2010 14:22	75	72	3	513-BKGDS1A	133	
1549	11/9/2010 14:22	70	72	-2	513-BKGDS1A	133	100
1550	11/9/2010 14:22	103	72	31	513-BKGDS1A	133	
1551	11/9/2010 14:22	105	72	33	513-BKGDS1A	133	
1552	11/9/2010 14:22	95	72	23	513-BKGDS1A	133	
1553	11/9/2010 14:22	78	72	6	513-BKGDS1A	133	
1554	11/9/2010 14:22	68	72	-4	513-BKGDS1A	133	
1555	11/9/2010 14:23	80	72	8	513-BKGDS1A	133	
1556	11/9/2010 14:23	74	72	2	513-BKGDS1A	133	
1557	11/9/2010 14:28	48	72	-24	513-BKGDS1A	133	
1558	11/9/2010 14:28	38	72	-34	513-BKGDS1A	133	
1559	11/9/2010 14:28	68	72	-4	513-BKGDS1A	133	
1560		69	72	-3	513-BKGDS1A	133	<u> </u>
	11/9/2010 14:28						
1561	11/9/2010 14:28	70	72	-2	513-BKGDS1A	133	
1562	11/9/2010 14:28	93	72	21	513-BKGDS1A	133	
1563	11/9/2010 14:28	90	72 	18	513-BKGDS1A	133	
1564	11/9/2010 14:29	109	72	37	513-BKGDS1A	133	
1565	11/9/2010 14:29	103	72	31	513-BKGDS1A	133	
1566	11/9/2010 14:29	85	72	13	513-BKGD\$1A	133	
1567	11/9/2010 14:29	98	72	26	513-BKGDS1A	133	
1568	11/9/2010 14:29	80	72	8	513-BKGDS1A	133	



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1569	11/9/2010 14:29	81	72	9	513-BKGDS1A	133	
1570	11/9/2010 14:29	63	72	-9	513-BKGDS1A	133	
1571	11/9/2010 14:29	80	72	8	513-BKGDS1A	133	
1572	11/9/2010 14:30	105	72	33	513-BKGDS1A	133	
1573	11/9/2010 14:30	91	72	19	513-BKGDS1A	133	-
1574	11/9/2010 14:30	88	72	16	513-BKGDS1A	133	
1575	11/9/2010 14:30	83	72	11	513-BKGDS1A	133	
1576	11/9/2010 14:30	90	72	18	513-BKGDS1A	133	
1577	11/9/2010 14:30	87	72	15	513-BKGDS1A	133	
1578	11/9/2010 14:30	101	72	29	513-BKGDS1A	133	y y
1579	11/9/2010 14:30	95	72	23	513-BKGDS1A	133	jen po apro
1580	11/9/2010 14:30	102	72	30	513-BKGDS1A	133	
1581	11/9/2010 14:31	70	72	-2	513-BKGDS1A	133	
1582	11/9/2010 14:31	91	72	19	513-BKGDS1A	133	And the second second
1583	11/9/2010 14:32	82	72	10	513-BKGDS1A	133	
1584	11/9/2010 14:32	119	72	47	513-BKGDS1A	133	
1585	11/9/2010 14:32	89	72	17	513-BKGDS1A	133	
1586	11/9/2010 14:32	82	72	10	513-BKGDS1A	133	
1587	11/9/2010 14:32	103	72	31	513-BKGDS1A	133	
1588	11/9/2010 14:32	83	72	11	513-BKGDS1A	133	
1589	11/9/2010 14:32	63	72	-9	513-BKGDS1A	133	
1590	11/9/2010 14:32	38	72	-34	513-BKGDS1A	133	
1591	11/9/2010 14:32	57	72	-15	513-BKGDS1A	133	
1592	11/9/2010 14:33	69	72	-3	513-BKGDS1A	133	
1593	11/9/2010 14:33	69	72	-3	513-BKGDS1A	133	
1594	11/9/2010 14:33	86	72	14	513-BKGDS1A	133	
1595	11/9/2010 14:33	93	72	21	513-BKGDS1A	133	2,6566
1596	11/9/2010 14:33	111	72	39	513-BKGDS1A	133	
1597	11/9/2010 14:33	88	72	16	513-BKGDS1A	133	
1598	11/9/2010 14:33	76	72	4	513-BKGDS1A	133	
1599	11/9/2010 14:33	68	72	-4	513-BKGDS1A	133	
1600	11/9/2010 14:34	72	72	0	513-BKGDS1A	133	CONTRACTOR CONTRACTOR



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1601	11/9/2010 14:34	73	72	1	513-BKGDS1A	133	
1602	11/9/2010 14:34	69	72	-3	513-BKGDS1A	133	
1603	11/9/2010 14:34	81	72	9	513-BKGDS1A	133	
1604	11/9/2010 14:35	81	72	9	513-BKGDS1A	133	
1605	11/9/2010 14:35	53	72	-19	513-BKGDS1A	133	
1606	11/9/2010 14:36	47	72	-25	513-BKGDS1A	133	
1607	11/9/2010 14:36	39	72	-33	513-BKGDS1A	133	
1608							
_	11/9/2010 14:36	57	72	-15	513-BKGDS1A	133	
1609	11/9/2010 14:36	80	72	8	513-BKGDS1A	133	
1610	11/9/2010 14:36	89	72	17	513-BKGDS1A	133	
1611	11/9/2010 14:36	105	72	33	513-BKGDS1A	133	
1612	11/9/2010 14:36	79	72	7	513-BKGDS1A	133	
1613	11/9/2010 14:36	87	72	15	513-BKGDS1A	133	
1614	11/9/2010 14:37	107	72	35	513-BKGDS1A	133	
1615	11/9/2010 14:37	99	72	27	513-BKGDS1A	133	
1616	11/9/2010 14:37	109	72	37	513-BKGDS1A	133	
1617	11/9/2010 14:37	77	72	5	513-BKGDS1A	133	5 HEAD IN
1618	11/9/2010 14:37	88	72	16	513-BKGDS1A	133	- 10
1619	11/9/2010 14:37	85	72	13	513-BKGDS1A	133	
1620	11/9/2010 14:37	73	72	1	513-BKGDS1A	133	
1621	11/9/2010 14:37	61	72	-11	513-BKGDS1A	133	
1622	11/9/2010 14:37	87	72	15	513-BKGDS1A	133	
1623	11/9/2010 14:38	79	72	7	513-BKGDS1A	133	
1624	11/9/2010 14:38	96	72	24	513-BKGDS1A	133	
1625	11/9/2010 14:38	71	72	-1	513-BKGDS1A	133	T
1626	11/9/2010 14:38	30	72	-42	513-BKGDS1A	133	
1627	11/9/2010 14:38	71	72	-1	513-BKGDS1A	133	
1628	11/9/2010 14:39	85	72	13	513-BKGDS1A	133	
1629	11/9/2010 14:39	65	72	-7	513-BKGDS1A	"	
1630						133	
	11/9/2010 14:39	70	72	-2	513-BKGDS1A	133	
1631	11/9/2010 14:39	62	72	-10	513-BKGDS1A	133	
1632	11/9/2010 14:39	64	72	-8	513-BKGDS1A	133	



Area: 989.60 m² Survey Unit: 16 Class: 1 Site Area: 707

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1633	11/9/2010 14:39	65	72	-7	513-BKGDS1A	133	
1634	11/9/2010 14:39	48	72	-24	513-BKGDS1A	133	
1635	11/9/2010 14:39	42	72	-30	513-BKGDS1A	133	
1636	11/9/2010 14:40	47	72	-25	513-BKGDS1A	133	
1637	11/9/2010 14:40	50	72	-22	513-BKGDS1A	133	
1638	11/9/2010 14:40	58	72	-14	513-BKGDS1A	133	
1639	11/9/2010 14:40	58	72	-14	513-BKGDS1A	133	
1640	11/9/2010 14:40	61	72	-11	513-BKGDS1A	133	
1641	11/9/2010 14:40	116	72	44	513-BKGDS1A	133	
1642	11/9/2010 14:40	106	72	34	513-BKGDS1A	133	
1643	11/9/2010 14:40	94	72	22	513-BKGDS1A	133	
1644	11/9/2010 14:40	86	72	14	513-BKGDS1A	133	1-1, 10(8
1645	11/9/2010 14:41	93	72	21	513-BKGDS1A	133	
1646	11/9/2010 14:41	84	72	12	513-BKGDS1A	133	
1647	11/9/2010 14:41	69	72	-3	513-BKGDS1A	133	
1648	11/9/2010 14:42	31	72	-41	513-BKGDS1A	133	1000 1 0, 8
1649	11/9/2010 14:42	59	72	-13	513-BKGDS1A	133	
1650	11/9/2010 14:42	63	72	-9	513-BKGDS1A	133	12.00
1651	11/9/2010 14:42	93	72	21	513-BKGDS1A	133	
1652	11/9/2010 14:43	83	72	11	513-BKGDS1A	133	100
1653	11/9/2010 14:43	74	72	2	513-BKGDS1A	133	
1654	11/9/2010 14:43	100	72	28	513-BKGDS1A	133	
1655	11/9/2010 14:43	106	72	34	513-BKGDS1A	133	
1656	11/9/2010 14:43	96	72	24	513-BKGDS1A	133	
1657	11/9/2010 14:43	96	72	24	513-BKGDS1A	133	
1658	11/9/2010 14:43	86	72	14	513-BKGDS1A	133	
1659	11/9/2010 14:43	55	72	-17	513-BKGDS1A	133	
1660	11/9/2010 14:44	39	72	-33	513-BKGDS1A	133	
1661	11/9/2010 14:44		72	-10	513-BKGDS1A	133	
1662	11/9/2010 14:44	59	72	-13	513-BKGDS1A	133	
1663	11/9/2010 14:44		72	-11	513-BKGDS1A	133	
1664	11/9/2010 14:44		72	5	513-BKGDS1A	133	



Survey Unit: 16 Area: 989.60 m² Class: 1 Site Area: 707

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Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
1665	11/9/2010 14:44	61	72	-11	513-BKGDS1A	133	
1666	11/9/2010 14:44	51	72	-21	513-BKGDS1A	133	
1667	11/9/2010 14:44	62	72	-10	513-BKGDS1A	133	
1668	11/9/2010 14:45	34	72	-38	513-BKGDS1A	133	
1669	11/9/2010 14:45	62	72	-10	513-BKGDS1A	133	
1670	11/9/2010 14:46	72	72	0	513-BKGDS1A	133	
1671	11/9/2010 14:46	92	72	20	513-BKGDS1A	133	
1672	11/9/2010 14:46	94	72	22	513-BKGDS1A	133	
1673	11/9/2010 14:46	86	72	14	513-BKGDS1A	133	281
1674	11/9/2010 14:46	54	72	-18	513-BKGDS1A	133	
1675	11/9/2010 14:46	64	72	-8	513-BKGDS1A	133	
1676	11/9/2010 14:46	56	72	-16	513-BKGDS1A	133	
1677	11/9/2010 14:46	49	72	-23	513-BKGDS1A	133	
1678	11/9/2010 14:46	47	72	-25	513-BKGDS1A	133	
1679	11/9/2010 14:47	32	72	-40	513-BKGDS1A	133	
1680	11/9/2010 14:47	45	72	-27	513-BKGDS1A	133	
1681	11/9/2010 14:47	62	72	-10	513-BKGDS1A	133	
1682	11/9/2010 14:47	81	72	9	513-BKGDS1A	133	
1683	11/9/2010 14:47	85	72	13	513-BKGDS1A	133	
1684	11/9/2010 14:47	88	72	16	513-BKGDS1A	133	
1685	11/9/2010 14:47	91	72	19	513-BKGDS1A	133	10-17
1686	11/9/2010 14:47	85	72	13	513-BKGDS1A	133	
1687	11/9/2010 14:48	36	72	-36	513-BKGDS1A	133	
1688	11/9/2010 14:48	60	72	-12	513-BKGDS1A	133	Andrew Color
1689	11/9/2010 14:48	57	72	-15	513-BKGDS1A	133	
1690	11/9/2010 14:48	83	72	11	513-BKGDS1A	133	
1691	11/9/2010 14:49	57	72	-15	513-BKGDS1A	133	
1692	11/9/2010 14:49	72	72	0	513-BKGDS1A	133	
1693	11/9/2010 14:49	58	72	-14	513-BKGDS1A	133	
1694	11/9/2010 14:49	82	72	10	513-BKGDS1A	133	1
1695	11/9/2010 14:49	89	72	17	513-BKGDS1A	133	
1696	11/9/2010 14:49	76	72	4	513-BKGDS1A	133	



Area: 989.60 m² Site Area: 707 Survey Unit: 16 Class: 1

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Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1697	11/9/2010 14:49	74	72	2	513-BKGDS1A	133	
1698	11/9/2010 14:49	80	72	8	513-BKGDS1A	133	
1699	11/9/2010 14:50	57	72	-15	513-BKGDS1A	133	
1700	11/9/2010 14:50	90	72	18	513-BKGDS1A	133	
1701	11/9/2010 14:50	61	72	-11	513-BKGDS1A	133	
1702	11/9/2010 14:50	45	72	-27	513-BKGDS1A	133	
1703	11/9/2010 14:51	34	72	-38	513-BKGDS1A	133	
1704	11/9/2010 14:51	46	72	-26	513-BKGDS1A	133	
1705	11/9/2010 14:51	69	72	-3	513-BKGDS1A	133	
1706	11/9/2010 14:51	57	72	-15	513-BKGDS1A	133	V 40 TO 0.00 PROCES 10 TO
1707	11/9/2010 14:51	94	72	22	513-BKGDS1A	133	
1708	11/9/2010 14:51	106	72	34	513-BKGDS1A	133	
1709	11/9/2010 14:51	87	72	15	513-BKGDS1A	133	
1710	11/9/2010 14:51	82	72	10	513-BKGDS1A	133	
1711	11/9/2010 14:52	53	72	-19	513-BKGDS1A	133	
1712	11/9/2010 14:52	64	72	-8	513-BKGDS1A	133	
1713	11/9/2010 14:52	100	72	28	513-BKGDS1A	133	
1714	11/9/2010 14:52	90	72	18	513-BKGDS1A	133	
1715	11/9/2010 14:52	70	72	-2	513-BKGDS1A	133	
1716	11/9/2010 14:52	77	72	5	513-BKGDS1A	133	
1717	11/9/2010 14:52	97	72	25	513-BKGDS1A	133	
1718	11/9/2010 14:53	43	72	-29	513-BKGDS1A	133	
1719	11/9/2010 14:53	51	72	-21	513-BKGDS1A	133	
1720	11/9/2010 14:54	70	72	-2	513-BKGDS1A	133	
1721	11/9/2010 14:54	91	72	19	513-BKGDS1A	133	
1722	11/9/2010 14:54	78	72	6	513-BKGDS1A	133	Day
1723	11/9/2010 14:54	64	72	-8	513-BKGDS1A	133	
1724	11/9/2010 14:54	53	72	-19	513-BKGDS1A	133	
1725	11/9/2010 14:54		72	-24	513-BKGDS1A	133	10 10 10 10 10 10 10 10 10 10 10 10 10 1
1726	11/9/2010 14:54		72	-25	513-BKGDS1A	133	
1727	11/9/2010 14:54		72	-33	513-BKGDS1A	133	
1728	11/9/2010 14:54		72	-20	513-BKGDS1A	133	



Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1729	11/9/2010 14:55	78	72	6	513-BKGDS1A	133	
1730	11/9/2010 14:55	52	72	-20	513-BKGDS1A	133	
1731	11/9/2010 14:55	69	72	-3	513-BKGDS1A	133	
1732	11/9/2010 14:55	88	72	16	513-BKGDS1A	133	
1733	11/9/2010 14:56	60	72	-12	513-BKGDS1A	133	
1734	11/9/2010 14:56	85	72	13	513-BKGDS1A	133	
1735	11/9/2010 14:56	100	72	28	513-BKGDS1A	133	
1736	11/9/2010 14:56	68	72	-4	513-BKGDS1A	133	
1737	11/9/2010 14:56	87	72	15	513-BKGDS1A	133	
1738	11/9/2010 14:56	113	72	41	513-BKGDS1A	133	
1739	11/9/2010 14:56	67	72	-5	513-BKGDS1A	133	
1740	11/9/2010 14:56	73	72	1	513-BKGD51A	133	
1741	11/9/2010 14:57	84	72	12	513-BKGDS1A	133	
1742	11/9/2010 14:57	99	72	27	513-BKGDS1A	133	
1743	11/9/2010 14:57	81	72	9	513-BKGDS1A	133	
1744	11/9/2010 14:57	106	72	34	513-BKGDS1A	133	
1745	11/9/2010 14:57	96	72	24	513-BKGDS1A	133	
1746	11/9/2010 14:57	85	72	13	513-BKGDS1A	133	- Lange
1747	11/9/2010 14:57	84	72	12	513-BKGDS1A	133	
1748	11/9/2010 15:08	37	72	-35	513-BKGDS1A	133	
1749	11/9/2010 15:09	45	72	-27	513-BKGDS1A	133	
1750	11/9/2010 15:09	41	72	-31	513-BKGDS1A	133	
1751	11/9/2010 15:09	35	72	-37	513-BKGDS1A	133	
1752	11/9/2010 15:09	69	72	-3	513-BKGDS1A	133	
1753	11/9/2010 15:09	73	72	1	513-BKGDS1A	133	
1754	11/9/2010 15:09	66	72	-6	513-BKGDS1A	133	
1755	11/9/2010 15:09	56	72	-16	513-BKGDS1A	133	
1756	11/9/2010 15:09	93	72	21	513-BKGDS1A	133	
1757	11/9/2010 15:09	124	72	52	513-BKGDS1A	133	
1758	11/9/2010 15:10	101	72	29	513-BKGDS1A	133	
1759	11/9/2010 15:10	79	72	7	513-BKGDS1A	133	
1760	11/9/2010 15:10	61	72	-11	513-BKGDS1A	133	
		40 C 015 C					



Area: 989.60 m² **Survey Unit: 16** Class: 1 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1761	11/9/2010 15:10	36	72	-36	513-BKGDS1A	133	
1762	11/9/2010 15:10	47	72	-25	513-BKGDS1A	133	
1763	11/9/2010 15:11	53	72	-19	513-BKGDS1A	133	
1764	11/9/2010 15:11	61	72	-11	513-BKGDS1A	133	
1765	11/9/2010 15:11	71	72	-1	513-BKGDS1A	133	
1766	11/9/2010 15:11	85	72	13	513-BKGDS1A	133	
1767	11/9/2010 15:11	82	72	10	513-BKGDS1A	133	
1768	11/9/2010 15:11	53	72	-19	513-BKGDS1A	133	
1769	11/9/2010 15:11	43	72	-29	513-BKGDS1A	133	
1770	11/9/2010 15:11	67	72	-5	513-BKGDS1A	133	
1771	11/9/2010 15:12	63	72	-9	513-BKGDS1A	133	
1772	11/9/2010 15:12	46	72	-26	513-BKGDS1A	133	
1773	11/9/2010 15:12	27	72	-45	513-BKGDS1A	133	
1774	11/9/2010 15:12	50	72	-22	513-BKGDS1A	133	
1775	11/9/2010 15:12	54	72	-18	513-BKGDS1A	133	
1776	11/9/2010 15:12	86	72	14	513-BKGDS1A	133	
1777	11/9/2010 15:13	68	72	-4	513-BKGDS1A	133	
1778	11/9/2010 15:13	46	72	-26	513-BKGDS1A	133	
1779	11/9/2010 15:13	61	72	-11	513-BKGDS1A	133	
1780	11/9/2010 15:13	57	72	-15	513-BKGDS1A	133	
1781	11/9/2010 15:13	55	72	-17	513-BKGDS1A	133	
1782	11/9/2010 15:13	48	72	-24	513-BKGDS1A	133	
1783	11/9/2010 15:13	55	72	-17	513-BKGDS1A	133	
1784	11/9/2010 15:14	21	72	-51	513-BKGDS1A	133	
1785	11/9/2010 15:14	47	72	-25	513-BKGDS1A	133	
1786	11/9/2010 15:14	54	72	-18	513-BKGDS1A	133	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1787	11/9/2010 15:14	79	72	7	513-BKGDS1A	133	
1788	11/9/2010 15:14	72	72	0	513-BKGDS1A	133	The state of the s
1789	11/9/2010 15:15	98	72	26	513-BKGDS1A	133	
1790	11/9/2010 15:15		72	27	513-BKGDS1A	133	
1791	11/9/2010 15:15		72	11	513-BKGDS1A	133	
1792	11/9/2010 15:15		72	-8	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
4700	44 10 10040 45 45	СРМ	СРМ	СРМ	545 545564	Level (com)	
1793	11/9/2010 15:15	76	72	4	513-BKGDS1A	133	
1794	11/9/2010 15:15	24	72	-48	513-BKGDS1A	133	
1795	11/9/2010 15:16	57	72	-15	513-BKGDS1A	133	
1796	11/9/2010 15:16	45	72	-27	513-BKGDS1A	133	
1797	11/9/2010 15:16	49	72	-23	513-BKGDS1A	133	
1798	11/9/2010 15:16	85	72	13	513-BKGDS1A	133	
1799	11/9/2010 15:16	76	72	4	513-BKGDS1A	133	
1800	11/9/2010 15:16	63	72	-9	513-BKGDS1A	133	
1801	11/9/2010 15:16	37	72	-35	513-BKGDS1A	133	
1802	11/9/2010 15:16	53	72	-19	513-BKGDS1A	133	
1803	11/9/2010 15:17	34	72	-38	513-BKGDS1A	133	
1804	11/9/2010 15:17	73	72	1	513-BKGDS1A	133	
1805	11/9/2010 15:17	53	72	-19	513-BKGDS1A	133 .	
1806	11/9/2010 15:17	82	72	10	513-BKGDS1A	133	
1807	11/9/2010 15:17	90	72	18	513-BKGDS1A	133	
1808	11/9/2010 15:18	87	72	15	513-BKGDS1A	133	
1809	11/9/2010 15:18	64	72	-8	513-BKGDS1A	133	
1810	11/9/2010 15:18	106	72	34	513-BKGDS1A	133	
1811	11/9/2010 15:18	75	72	3	513-BKGDS1A	133	
1812	11/9/2010 15:18	34	72	-38	513-BKGDS1A	133	
1813	11/9/2010 15:19	23	72	-49	513-BKGDS1A	133	
1814	11/9/2010 15:19	53	72	-19	513-BKGDS1A	133	
1815	11/9/2010 15:19	58	72	-14	513-BKGDS1A	133	A
1816	11/9/2010 15:19	55	72	-17	513-BKGDS1A	133	
1817	11/9/2010 15:19	73	72	1	513-BKGDS1A	133	
1818	11/9/2010 15:19	83	72	11	513-BKGDS1A	133	
1819	11/9/2010 15:20	35	72	-37	513-BKGDS1A	133	
1820	11/9/2010 15:20	60	72	-12	513-BKGDS1A	133	
1821	11/9/2010 15:20	46	72	-26	513-BKGDS1A	133	
1822	11/9/2010 15:20	70	72	-2	513-BKGDS1A	133	
1823	11/9/2010 15:20	82	72	10	513-BKGDS1A	133	
1824	11/9/2010 15:20	77	72	5	513-BKGDS1A	133	
							1000



TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
1825	11/9/2010 15:21	21	72	-51	513-BKGDS1A	133	
1826	11/9/2010 15:21	25	72	-47	513-BKGDS1A	133	
1827	11/9/2010 15:21	73	72	1	513-BKGDS1A	133	
1828	11/9/2010 15:21	66	72	-6	513-BKGDS1A	133	
1829	11/9/2010 15:21	56	72	-16	513-BKGDS1A	133	
1830	11/9/2010 15:21	58	72	-14	513-BKGDS1A	133	
1831	11/9/2010 15:21	67	72	-5	513-BKGDS1A	133	
1832	11/9/2010 15:22	50	72	-22	513-BKGDS1A	133	
1833	11/9/2010 15:22	61	72	-11	513-BKGDS1A	133	
1834	11/9/2010 15:23	73	72	1	513-BKGDS1A	133	
1835	11/9/2010 15:23	64	72	-8	513-BKGDS1A	133	
1836	11/9/2010 15:23	78	72	6	513-BKGDS1A	133	- AC
1837	11/9/2010 15:23	90	72	18	513-BKGDS1A	133	
1838	11/9/2010 15:24	21	72	-51	513-BKGDS1A	133	
1839	11/9/2010 15:24	29	72	-43	513-BKGDS1A	133	
1840	11/9/2010 15:24	74	72	2	513-BKGDS1A	133	
1841	11/9/2010 15:24	94	72	22	513-BKGDS1A	133	
1842	11/9/2010 15:24	80	72	8	513-BKGDS1A	133	
1843	11/9/2010 15:24	67	72	-5	513-BKGDS1A	133	
1844	11/9/2010 15:24	58	72	-14	513-BKGDS1A	133	
1845	11/9/2010 15:25	22	72	-50	513-BKGDS1A	133	
1846	11/9/2010 15:25	36	72	-36	513-BKGDS1A	133	
1847	11/9/2010 15:25	49	72	-23	513-BKGDS1A	133	
1848	11/9/2010 15:25	93	72	21	513-BKGDS1A	133	
1849	11/9/2010 15:25	76	72	4	513-BKGDS1A	133	
1850	11/9/2010 15:26	65	72	-7	513-BKGDS1A	133	
1851	11/9/2010 15:26	24	72	-48	513-BKGDS1A	133	
1852	11/9/2010 15:26	59	72	-13	513-BKGDS1A	133	7 9 8 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1853	11/9/2010 15:26	65	72	-7	513-BKGDS1A	133	
1854	11/9/2010 15:27	98	72	26	513-BKGDS1A	133	
1855	11/9/2010 15:27	77	72	5	513-BKGDS1A	133	
1856	11/9/2010 15:27	72	72	0	513-BKGDS1A	133	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1857	11/9/2010 15:27	73	72	1	513-BKGDS1A	133	

Net Gamma cpm Summary

Min: -52 Avg: -4

Max: 60

St Dev: 20

Readings > 3 σ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3σ investigation level are verified by 2360 beta measurements



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Bonort **Background Report**

Area: 989.60 m² Class: 1 Site Area: 707 Survey Unit: 16

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 513

Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228703

Probe Seriai #: 091806C1

Calibration Due Date: 10/22/2011

1.00 Reference Area Background Identification #: 513-BKGDS1A Count Time (minutes):

Rdg #	Date and Time	Gross Gamma CPM
1	11/02/2010 7:32	51
2	11/02/2010 7:34	90
3	11/02/2010 7:35	57
4	11/02/2010 7:36	77
5	11/02/2010 7:38	63
6	11/02/2010 7:39	84
7	11/02/2010 7:40	89
8	11/02/2010 7:41	141
9	11/02/2010 7:42	71
10	11/02/2010 7:44	46
11	11/02/2010 7:45	76
12	11/02/2010 7:46	65
13	11/02/2010 7:48	58
14	11/02/2010 7:49	65
15	11/02/2010 7:50	67
16	11/02/2010 7:51	81
17	11/02/2010 7:52	72
18	11/02/2010 7:54	56
19	11/02/2010 7:55	62
20	11/02/2010 7:56	65

Gamma Mean Background (cpm):

72

Standard Deviation:

20

Gamma 3σ Investigation

133

Level (cpm):



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620 Instrument/Probe Type: 2350-1 / 20DT06

Instrument 5eriai #: 228694 Probe Seriai #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	168
2	10/13/2011 15:13	176
3	10/13/2011 15:14	169
4	10/13/2011 15:15	178
5	10/13/2011 15:16	162
6	10/13/2011 15:17	168
7	10/13/2011 15:19	198
8	10/13/2011 15:20	190
9	10/13/2011 15:21	169
10	10/13/2011 15:22	282
11	10/13/2011 15:23	192
12	10/13/2011 15:25	230
13	10/13/2011 15:26	196
14	10/13/2011 15:27	165
15	10/13/2011 15:28	291
16	10/13/2011 15:30	147
17	10/13/2011 15:31	166
18	10/13/2011 15:32	168
19	10/13/2011 15:33	290
20	10/13/2011 15:35	284
		The state of the s

Gamma Mean Background (cpm): 199

Standard Deviation: 48

Gamma 3σ Investigation 344

Level (cpm):

Site Area: 707 Survey Unit: 16 Class: 1 Area: 989.60 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 421-BKGDS1

Instrument Serial Number:

167145

Reference Area Background

Parcel D-1

Instrument Calibration Due Date: 3/5/2011

Location:

Identification #:

Reference

Exposure Rate

5

Background (µR/hr):

Rdg#	Date	Exposure Rate (µR/hr)	Comments
1	11/22/2010	7	
2	11/22/2010	7	
3	11/22/2010	7	
4	11/22/2010	7	
5	11/22/2010	7	
6	11/22/2010	6	
7	11/22/2010	7	
8	11/22/2010	7	
9	11/22/2010	7	
10	11/22/2010	7	
11	11/22/2010	6	
12	11/22/2010	7	Add to the second secon
13	11/22/2010	7	
14	11/22/2010	5	
15	11/22/2010	6	
16	11/22/2010	6	
17	11/22/2010	7	
18	11/22/2010	7	
19	11/22/2010	6	
20	11/22/2010	6	
21	12/1/2010	7	
22	12/1/2010	8	
23	12/1/2010	7	
24	12/1/2010	8	
25	12/1/2010	7	
26	12/1/2010	6	
27	12/1/2010	7	



TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	12/1/2010	8	
29	12/1/2010	8	
30	12/1/2010	8	
31	12/1/2010	7	
32	12/1/2010	8	
33	1/17/2011	6	
34	1/17/2011	5	
35	1/17/2011	5	
36	1/17/2011	6	
37	1/17/2011	6	
38	1/17/2011	6	
39	1/17/2011	5	
40	1/17/2011	5	
41	1/17/2011	5	
42	2/15/2011	4	
43	2/15/2011	4	
44	2/15/2011	5	
45	3/4/2011	6	10 C 10 C
46	3/4/2011	4	51 A-
47	3/4/2011	4	
48	3/4/2011	4	
49	3/4/2011	5	
50	3/4/2011	6	
51	3/4/2011	4	
52	3/4/2011	6	
53	3/4/2011	6	
54	3/4/2011	5	
55	3/4/2011	7	
56	3/4/2011	4	
57	3/4/2011	4	
58	3/4/2011	6	
59	3/4/2011	6	De 201- 1
60	3/4/2011	6	
61	3/4/2011	6	
62	3/4/2011	5	

Exposure Rate Measurements

Date	Exposure Rate (µR/hr)	Comments
3/4/2011	7	
3/4/2011	7	
	3/4/2011 3/4/2011	(μR/hr) 3/4/2011 7 3/4/2011 7

Instrument Model:

Model 19

Reference Area Background 577-BKGDS1

Instrument Serial Number:

109970

Reference Area Background

Parcel D-1

Instrument Calibration Due Date: 2/24/2012

Location:

Reference

Exposure Rate

Identification #:

Background (µR/hr):

5

Kag #	Date	Exposure κατε (μR/hr)	Comments
65	5/6/2011	6	
66	5/6/2011	6	

Instrument Model:

nata w

Rdg#

Modei 19

2/24/2012

Exposure Rate Comments

Reference Area Background

578-BKGDS1

Instrument Serial Number:

Instrument Calibration Due Date:

Date

207505

Identification #:

Parcel D-1

5

Reference Area Background

Location:

Reference

Exposure Rate

Background (µR/hr):

True #	Date	(μR/hr)	Conmens
67	6/7/2011	5	
68	6/7/2011	5	
69	6/7/2011	6	
70	6/7/2011	6	
71	6/7/2011	6	
72	6/7/2011	6	
73	6/7/2011	6	
74	6/7/2011	6	
75	6/7/2011	6	
76	6/7/2011	6	
77	6/7/2011	6	
78	6/7/2011	6	
79	6/7/2011	6	
80	6/7/2011	6	2000 CONTROL 1900
81	6/7/2011	6	
82	6/7/2011	6	3 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1



TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
83	6/7/2011	6	
84	6/7/2011	6	
85	6/7/2011	6	
86	6/7/2011	6	

Instrument Model:

Model 19

Reference Area Background

666-BKGDS1

Instrument Serial Number:

Instrument Calibration Due Date:

91499

Reference Area Background

1/15/2013 Location:

Parcel D-1 Reference

Exposure Rate

Identification #:

6

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
87	5/4/2012	6	
88	5/4/2012	6	MUMA ANDRES
89	5/4/2012	6	
90	5/4/2012	6	
91	6/29/2012	5	

Instrument Model:

Model 19

Reference Area Background

667-BKGDS1

Instrument Serial Number:

107447

Identification #:

Parcel D-1

Instrument Calibration Due Date:

1/12/2013

Reference Area Background

Reference

Location:

Exposure Rate
Background (µR/hr):

6

Rdg # Date Exposure Rate Comments

(µR/hr)

92 8/7/2012 5

Exposure Rate Min: 4.00 Summary (μR/hr)

Avg: 6.03

Max: 8.00

St Dev: 1.00

Page 1 of 1

Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRA TECH EC, INC.

San Diego, CA 92101

BFS 01728

ပွ Project Information START END DEPTH Section LOCATION COMMENTS ONSITE - NWT LABORATORY NAME LABORATORY ID A II II A Σ Σ $\overline{\Sigma}$ Σ Σ $\overline{\Sigma}$ Σ \square [2] D Σ Σ S K 6 0 ひょ 対 対 み な り お り ひ 2 > Σ \square \square [2] $\mathbf{\Sigma}$ \square \sum \square \square TIME | Containers | LEVEL | TYPE S ග S Ø S ຜ Ø Ø Ø Ø Ø S 949-756-7592 3670-003 XX Project Chemist Phone Project Number Airbill Number PO Number 11/22/2010 103/2/11 11/22/2010 10SD 11/22/2010 1040 34 01 0102122111 11/22/2010 1025 11/22/2010 1030 11/22/2010 1035 5501 0102/211 0011 01027211 2011 010212111 11/22/2010 1010 11/22/2010 1015 DATE Sampler Name ROLFE
Project Chemist
LISA BIENKOWSKI Project Name Radiological Building Survey Project Location HUNTERS POINT 03707-S0016-F001-01 03707-S0016-F002-01 03707-S0016-F004-01 03707-S0016-F005-01 03707-S0016-F006-01 03707-S0016-F008-01 03707-S0016-F012-01 03707-S0016-F007-01 03707-S0016-F009-01 03707-S0016-F003-01 03707-S0016-F011-01 03707-S0016-F010-01 SAMPLE_ID

mature)	Date 11-22-10	Date Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS.	SAMPLING COMMENTS
	Time [5] (O	Company		BUILDING TOT TOTALE
Relinquished by: (signature)		Received by: (signature)	COMPOSITE DESCRIPTION	Seater Out 16
Сотрану	Time	Сотрапу		Spicondict - 18
Relinquished by: (signamre)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Сотрану	Time	Сотрапу	TEMPERATURE: SAMPLE, CONDITION; COOLER SEAL.	J. J.
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Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diege, CA 92101

Page 1 of 1

Project Name Radiological Building Survey	irvey	PO Number	her.	N/A			ب و	S	¥,			 LABORATORY NAME	Project Information	matio	_
Project Location HUNTERS POINT	Ŀ	Project Number	umber	3670-003	543		Σ E -	× 0 0	그라표			ONSITE - NWT	Section	_	
Sampler Name ROLFE	1	Airbill Number	mber	ν V V			< °> €	阜	4	 		 LABORATORY ID			
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemust Phone	949-756-7592	7592		. a O								
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	F 4 7	-	-	1			COMMENTS	LOCATION	DEPTH START END	ည
03707-S0016-F013-01	11/22/2010	1110	-	-	S	,	<u> </u>	<u> </u>				12			
03707-S0016-F014-01	11/22/2010	1115	-		S		[<u>S</u>]	2	_))			¥3	
03707-S0016-F015-01	11/22/2010	1120	1		s		2	[2]							
03707-S0016-F016-01	11/22/2010	1125	1		S		[2]							-	
03707-S0016-F017-01	11/22/2010	1130	1		S		[2]	2	_			Ø			(4)
03707-S0016-F018-01	11/22/2010	1135	1		S		2	<u> </u>						_	
03707-S0016-F019-01	11/22/2010	INO	1		s		<u> </u>	2						_	
03707-S0016-F020-01	11/22/2010	1145	-	:	S		<u> </u>							-	

Relinguished by: (Pignature)	Date 11-22-16	Date Received by (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMINIS
Company	Time 15,10	Company		BUILDING 107 TRIANGLE
nature)		Received by: (signature)	COMPOSITE DESCRIPTION	Survey Unit 16
Сотрану	Time	Сотрапу		SYSTEMATIC 1-20
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION OF ON RECEIFY GOR LABORATORY)	
Сотрану	Time	Сошрапу	TENTERATURE: SAMILLE CONDITION: COOLER SEAL:	Pagner F

12.10 Columbia St, Suite 750 TETRA TECH EC, INC.

San Diego, CA 92101

BFS 01755

S Project Information START END DEPTH Section LOCATION COMMENTS ONSITE - NWT CAAS ABORATORY ID A II L E A -Σ Σ Σ Σ Σ Σ Σ Σ Σ > Σ Σ S 24 6 0 2 ひまればするではら _ $oldsymbol{\Sigma}$ Σ Σ $\mathbf{\Sigma}$ \sum \triangleright \square > \square Σ Σ TIME | Containers | LEVEL | TYPE Ø S ഗ (C) S ഗ 949-756-7592 Ø Ø ഗ S S ဟ 3670-003 ¥ Project Chemist Phone Project Number Airbill Number PO Number 0660 12/12010 0935 12/12010 | 0945 12/12010 0950 12/12010 0940 12/12010 1/005 12/12010 0935 12/12010 0930 12/12010 1000 12/12010 10 20 12/1/2010 12/1/2010 DATE 12/1/2010 Radiological Building Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Manne Smith 03707-S0016-F021-01 03707-S0016-F022-01 03707-S0016-F023-01 03707-S0016-F024-01 03707-S0016-F025-01 03707-S0016-F026-01 03707-S0016-F027-01 03707-S0016-F031-01 03707-S0016-F028-01 03707-S0016-F029-01 03707-S0016-F032-01 03707-S0016-F030-01 SAMPLE_ID Project Name

Relinguishert by: (signature)	Date 1-10	Received hysticinguish	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
	Time /4/5	Company N 1 1		BADT TRIMERE
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITIE DISCRIPTION	\$ -1.e
Сотрану	Time	Сошрапу		BASED 21-32
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIFT (FOR LABORATORY)	
Сотрану	Time	Сотрапу	TEGAPERATURE: SAMINE CONDITION: COOLER SEAL,	
			Company of the Compan	

TE TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Chain-of-Custody Record

Page 1 of 1

Project Name		200							ļ					1		
Radiological Building Survey	g Survey		3	K/A		٠		4	-	L		=	LABORATORY NAME	1,900		
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1230 Columbia St, Suite 750 San Diega, CA 92101

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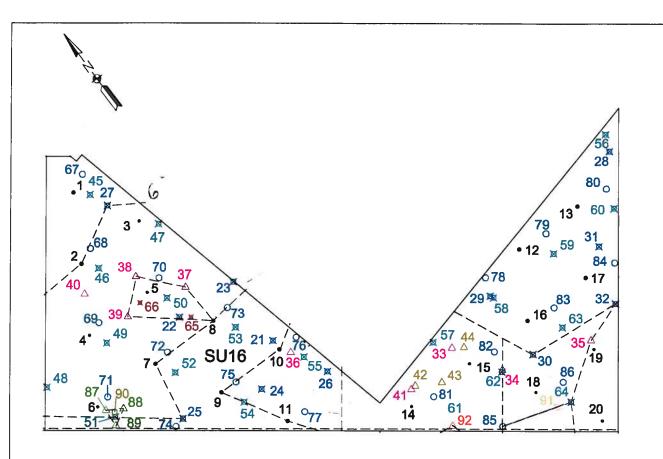
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BUILDING 707 SURVEY UNIT 16



TETRA TECH EC, IN C

1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: November 22, 2010 EMAC – CTO 03		
	Report Date: November 22, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #21 and #22. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 90 cpm for the FIDLER and 8,423 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 109 cpm for the FIDLER and 8,502 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

• Following a review of analytical results from Survey Unit 5, staged asphalt debris from Grids 18, 20 and 22 were transferred to the recycling stockpile.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team and the RASO concurred with backfilling Trench Unit No. 182.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: December 1, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 3. A total of 18 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 83 cpm for the FIDLER and 7,705 cpm. In addition, 9 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 13. A total of 6 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 73 cpm for the FIDLER and 6,663 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 14. A total of 14 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 167 cpm for the FIDLER and 6,981 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 24 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 87 cpm for the FIDLER and 9,091 cpm. In addition, 12 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 18. A total of 16 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 212 cpm for the FIDLER and 8,560 cpm. In addition, 8 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

- The HPS Team performed Class 1 survey activities in Survey Unit 20. A total of 12 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 167 cpm for the FIDLER and 8,622 cpm. In addition, 6 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 21. A total of 30 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 99 cpm for the FIDLER and 8,382 cpm. In addition, 15 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Scrap Yard

• The HPS Team performed Class 1 survey activities in Survey Unit 7. A characterization gamma static measurement was logged, and a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Backfilling activities were initiated for Trench Unit No. 182 by the HPS Team.
- Backfilling activities were continued for Trench Units No. 174 and 183 by the HPS Team.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: January 17, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3 and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 90 cubic yards of soil from Survey Units 15, 16 and 17 and placed the material in LLRW bins BKRU025553G13, BKRU026385G14, GFLU001013G8, GFLU001059G15, GFLU001127G15, and GFLU001199G9 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 18 post-remediation gamma statics were logged. The maximum gamma static measurements logged were 73 cpm for the FIDLER and 7,830 cpm. In addition, nine post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of six post-remediation gamma statics were logged. The maximum gamma static measurements logged were 218 cpm for the FIDLER and 9,088 cpm. In addition, three post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Compaction testing was continued on recently backfilled areas of Trench Units No. 184 and 187. Based on the compaction testing results, backfill activities were continued for both trench survey units.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: February 15, 2011	EMAC – CTO 03
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Overview

The HPS Team continued field activities in the Building 707 Triangle Area, the Scrap Yard, Parcel UC3, and Work Areas #16, #20 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 60 cubic yards of soil from Survey Units 5, 9, and 14 and placed the material in LLRW bins BKRU025603G15, GFLU001039G16, GFLU001139G8 and GFLU001233G5 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of six post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 56 cpm (FIDLER) and 4,468 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of four characterization gamma static measurements were logged. The maximum gamma static measurements logged were 208 cpm (FIDLER) and 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Units 3, 5, 7, 9, 13, 14, 15, 20, and 21. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the biased "pothole" samples collected from Survey Unit 4. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Unit 16. The laboratory analytical results identified ⁹⁰Sr activity above the release criteria at Sample Point 33 (18.5 pCi/g).
- The HPS Team provided the RASO with the on-site and off-site analytical results for the post-remediation samples collected from Survey Unit 17. The analytical results

- identified the presence of ⁹⁰Sr activity above the release criteria at Sample Point 37 (15.1 pCi/g).
- Staged asphalt debris excavated from Survey Units 10, 11 and 18 was transferred to the off-site recycling stockpiles near Building 411.
- The HPS Team issued record drawings to identify locations for post-remediation sample collection in Survey Unit 13.

Scrap Yard

• Staged asphalt debris from Survey Unit 6 was transferred to the recycling stockpiles near Building 411.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and continued preparations for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: March 4, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 13. A total of 20 systematic gamma static measurements were logged. The maximum gamma static measurements logged were 99 cpm for the FIDLER and 5,755 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed survey activities in Survey Unit 16. A total of 20 systematic gamma static measurements were logged. The maximum gamma static measurements logged were 82 cpm for the FIDLER and 6,963 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and preparation for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: May 6, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- Approximately 7.5 cubic yards of soil was remediated from Survey Units 16 and 17 by the HPS Team and placed in LLRW bins BKRU012774G6, BKRU026398G13, and GFLU001221G8 for off-site disposal.
- The HPS Team logged a total of four post-remediation gamma static measurements in Survey Unit 16. The maximum measurements logged were 83 cpm (FIDLER) and 5,499 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged four post-remediation gamma static measurements in Survey Unit 17. The maximum measurements logged were 209 cpm (FIDLER) and 8,228 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged 42 investigative gamma static measurements in Survey Unit 19. The maximum measurements logged were 184 cpm (FIDLER) and 9,731 cpm. In addition, 21 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: June 7, 2011	EMAC – CTO 03

Overview

The HPNS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

• The HPNS Team performed survey activities in Survey Unit 16. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 95 cpm (FIDLER) and 7,256 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

• A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 4, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- Approximately 92 cubic yards of soil was remediated from Class 1 Survey Units 16 and 21 by the HPNS Team and placed in LLRW bins BFLU000163T17, ESUU100006, GFLU001028, GFLU001107, GFLU002057, and GFLU002171 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Asphalt Grid A7 An investigational gamma static measurement was logged at 5,688 cpm. A total of 80 alpha/beta scan readings and an additional investigational static measurement also were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. In addition, one swipe sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 16 Three characterization and one post-remediation gamma static
 measurements were logged with maximum measurements of 192 cpm (FIDLER)
 and 5,960 cpm. In addition, four soil samples were collected and submitted to the
 off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 16.

Shacks 79 and 80

• The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 2. Because no activity above the release criteria was identified, the entire systematic sample set will be submitted to the off-site laboratory for analysis.

500 Series Area

 Towed array gamma scan survey activities were resumed over sections of Class 2 Survey Unit 23.

- The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 5, 6, and 15; no activity above the release criteria was identified.
- The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Class 1 Survey Unit 15 and record drawings to identify the post-remediation sample collection locations in Class 1 Survey Units 16 and 18.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 360 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-507-38-3V	34 linear feet completed
-	07-507-38-4B	7 linear feet completed
-	07-508-38-4C	44 linear feet completed
_	07-508-38-4D	61 linear feet completed
-	07-508-38-4E	59 linear feet completed
-	07-508-38-8A	10 linear feet completed
_	07-E36-38-3V	35 linear feet completed
_	07-E36-38-4B	15 linear feet completed
_	07-E36-38-4C	15 linear feet completed
_	07-E36-38-4F	20 linear feet completed
-	07-E36-38-4M	3 linear feet completed

- A total of 293 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 10 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH1239, MH1240, MH1241, MH1242, and MH1271, and pipe excavated from trench segments 07-507-38-8A and 07-E36-38-4F were placed on plastic pending further activities.
- Approximately 2.5 cubic yards of soil was remediated from Trench Unit No. 249 (trench segment 07-E36-38-3M) by the HPNS Team and placed in LLRW bin GFLU002139 for off-site disposal.
- Three post-remediation samples were collected from Trench Unit No. 249 by the HPNS Team and submitted to the on-site laboratory for analysis.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: June 29, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:
 - Sample Point 11 (07500SA-S0022-F011-01) with 137 Cs at 0.1628 pCi/g Sample Point 38 (07500SA-S0022-F038-01) with 137 Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ¹³⁷Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ¹³⁷Cs at 0.1338 pCi/g
- Sample Point 35 (07500SA-S0023-F035-01) with ¹³⁷Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ¹³⁷Cs at 0.1210 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:
 - Sample Point 7 (07500SA-S0024-F007-01) with 137 Cs at 0.1434 pCi/g Sample Point 11 (07500SA-S0024-F011-01) with 137 Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: August 7, 2012 RMAC – CTO 07		
	R	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued activities on the containment vault concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The upper five feet of the containment vault concrete walls were removed and placed on plastic pending radiological survey activities.
- Approximately 10 cubic yards of soil generated during excavation of the outer walls of the containment vault were transferred by the HPNS Team to LLRW bin AWIU000216T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 16 A total of two characterization gamma static measurements were logged at 226 cpm (FIDLER) and 6,811 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 22 A total of twenty characterization gamma static measurements were logged with the maximum measurements recorded at 231 cpm (FIDLER) and 5,689 cpm. In addition, ten soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing survey data for Class 1 Survey Units 16 and 22.
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Units 16 and 22.

500 Series Area

• The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Units 22 through 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 893 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report

A	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
707	16	1	Systematic	03707-S0016-F001-01	22-Nov-10	Tina Rolfe
707	16	2	Systematic	03707-S0016-F002-01	22-Nov-10	Tina Rolfe
707	16	3	Systematic	03707-S0016-F003-01	22-Nov-10	Tina Rolfe
707	16	4	Systematic	03707-S0016-F004-01	22-Nov-10	Tina Rolfe
707	16	5	Systematic	03707-S0016-F005-01	22-Nov-10	Tina Rolfe
707	16	6	Systematic	03707-S0016-F006-01	22-Nov-10	Tina Rolfe
707	16	7	Systematic	03707-S0016-F007-01	22-Nov-10	Tina Rolfe
707	16	8	Systematic	03707-S0016-F008-01	22-Nov-10	Tina Rolfe
707	16	9	Systematic	03707-S0016-F009-01	22-Nov-10	Tina Rolfe
707	16	10	Systematic	03707-S0016-F010-01	22-Nov-10	Tina Rolfe
707	16	11	Systematic	03707-S0016-F011-01	22-Nov-10	Tina Rolfe
707	16	12	Systematic	03707-S0016-F012-01	22-Nov-10	Tina Rolfe
707	16	13	Systematic	03707-S0016-F013-01	22-Nov-10	Tina Rolfe
707	16	14	Systematic	03707-S0016-F014-01	22-Nov-10	Tina Rolfe
707	16	15	Systematic	03707-S0016-F015-01	22-Nov-10	Tina Rolfe
707	16	16	Systematic	03707-S0016-F016-01	22-Nov-10	Tina Rolfe
707	16	17	Systematic	03707-S0016-F017-01	22-Nov-10	Tina Rolfe
707	16	18	Systematic	03707-S0016-F018-01	22-Nov-10	Tina Rolfe
707	16	19	Systematic	03707-S0016-F019-01	22-Nov-10	Tina Rolfe
707	16	20	Systematic	03707-S0016-F020-01	22-Nov-10	Tina Rolfe
707	16	21	Biased	03707-S0016-F021-01	01-Dec-10	Anthony Smith
707	16	22	Biased	03707-S0016-F022-01	01-Dec-10	Anthony Smith
707	16	23	Biased	03707-S0016-F023-01	01-Dec-10	Anthony Smith
707	16	24	Biased	03707-S0016-F024-01	01-Dec-10	Anthony Smith
707	16	25	Biased	03707-S0016-F025-01	01-Dec-10	Anthony Smith
707	16	26	Biased	03707-S0016-F026-01	01-Dec-10	Anthony Smith
707	16	27	Biased	03707-S0016-F027-01	01-Dec-10	Anthony Smith
707	16	28	Biased	03707-S0016-F028-01	01-Dec-10	Anthony Smith
707	16	29	Biased	03707-S0016-F029-01	01-Dec-10	Anthony Smith
707	16	30	Biased	03707-S0016-F030-01	01-Dec-10	Anthony Smith
707	16	31	Biased	03707-S0016-F031-01	01-Dec-10	Anthony Smith
707	16	32	Biased	03707-S0016-F032-01	01-Dec-10	Anthony Smith
707	16	33	Post-Remediation	03707-S0016-F033-01	17-Jan-11	Rick Zahensky
707	16	34	Post-Remediation	03707-S0016-F034-01	17-Jan-11	Rick Zahensky
707	16	35	Post-Remediation	03707-S0016-F035-01	17-Jan-11	Rick Zahensky
707	16	36	Post-Remediation	03707-S0016-F036-01	17-Jan-11	Rick Zahensky
707	16	37	Post-Remediation	03707-S0016-F037-01	17-Jan-11	Rick Zahensky
707	16 16	38 39	Post-Remediation	03707-S0016-F038-01	17-Jan-11	Rick Zahensky
707 707	16	40	Post Remediation	03707-S0016-F039-01	17-Jan-11	Rick Zahensky
707	16	41	Post-Remediation Post-Remediation	03707-S0016-F040-01	17-Jan-11 17-Jan-11	Rick Zahensky
707	16	42	Post-Remediation	03707-S0016-F041-01		Rick Zahensky
707	16	43	Post-Remediation	03707-S0016-F042-01 03707-S0016-F043-01	15-Feb-11 15-Feb-11	Rick Zahensky
707	16	44	Post-Remediation	03707-S0016-F043-01	15-Feb-11	Rick Zahensky
707	16	45	Systematic	03707-S0016-F044-01	04-Mar-11	Rick Zahensky
707	16	46	Systematic	03707-S0016-F045-01	04-Mar-11 04-Mar-11	Jeff Rolfe
707	16	47	Systematic	03707-S0016-F047-01	04-Mar-11	Jeff Rolfe Jeff Rolfe
707	16	48	Systematic	03707-S0016-F047-01	04-Mar-11	Jeff Rolfe
707	16	49	Systematic	03707-S0016-F049-01	04-Mar-11	Jeff Rolfe
707	16	50	Systematic	03707-S0016-F050-01	04-Mar-11	Jeff Rolfe
707	16	51	Systematic	03707-S0016-F050-01	04-Mar-11	Jeff Rolfe
707	16	52	Systematic	03707-S0016-F051-01	04-Mar-11	Jeff Rolfe
707	16	53	Systematic	03707-S0016-F052-01	04-Mar-11	Jeff Rolfe
101	10			00101-00010-000-01	UT-IVIAI- I I	JULI IVIIE

On-Site Laboratory (pCi/g)					
K-40	Ra-226	Cs-137	Bi-214	Pb-214	
25.977	0.35391	0.056503	0.61543	0.81845	
14.209	1.0213	0.021841	0.65986	0.50425	
19.228	0.33111	0.12657	0.68357	0.65055	
18.23	0.89666	0.26484	0.59529	0.60482	
21.443	0.26586	0.17455	0.80719	0.62778	
9.5126	-0.026202	0.29169	0.46	0.4241	
14.83	1.2128	0.041026	0.6713	0.76229	
17.283	0.50386	0.0072541	0.66701	0.72834	
19.058	0.78578	0.041577	0.68971	0.65485	
20.351	0.50459	-0.0079741	0.76514	0.76514	
6.7239	-0.062491	0.049879	0.24614	0.2484	
21.015	0.54214	0.0012024	0.49041	0.73573	
21.376	0.4858	0.055742	0.55434	0.73795	
9.6587	0.36838	0.4707	0.2944	0.29011	
12.982	0.44589	0.244 54	0.45561	0.47084	
19.139	0.019777	0.015999	0.5763	0.51572	
19.333	0.068967	0.022832	0.73022	0.75396	
15.963	0.32873	0.14804	0.41252	0.37991	
14.134	0.54611	0.17309	0.43743	0.40684	
10.183	0.031277	0.18895	0.38684	0.46314	
17.49	1.1015	-0.01223	0.81148	0.8514	
19.806	0.89363	0.13495	0.91984	0.83414	
21.483	1.1035	0.13996	0.77523	0.91474	
9.6753	0.41222	0.20792	0.36109	0.3563	
16.043	1.1717	0.026127	0.83408	0.79666	
14.399	0.82215	0.20937	0.4707	0.52887	
20.437	1.0715	0.049257	0.76693	0.66048	
22.663	0.93953	-0.0012831	0.71665	0.69167	
20.942	0.52624	0.020506	0.73853	0.72367	
17.35	0.39821	0.10758	0.44863	0.52639	
19.385	0.90962	-0.0065887	0.67967	0.59581	
23.22	0.72588	0.069129	0.7661	0.8401	
12.93	1.144	8.221	0.6597	0.7154	
5.662	0.297	0	0.2781	0.313	
12.99	0.3137	0.0009286	0.3539	0.2971	
0.9922	0.5175	-0.002927	0.5959	0.5373	
22.95	1.181	-0.003293	0.7502	0.7777	
21.71	1.204	0.0128	0.4688	0.7863	
16.09	1.033	0.005474	0.3186	0.2787	
12.12	0.2989	0.007668	0.3626	0.3631	
9.371	-0.02126	-0.001834	0.2684	0.3256	
13.27	0.5436	0.01628	0.2246	0.2975	
12.13	0.7198	0.01883	0.4216	0.4412	
11.85	-0.001787	0.01242	0.4198	0.3846	
6.635	0.8271	-0.005854	0.1939	0.3053	
6.553	0.4715	0.003859	0.26	0.2745	
6.587	0.097	0.00006063	0.1483	0.3005	
5.965	0.3896	-0.009017	0.118	0.2547	
5.821	0.4077	-0.008171	0.1508	0.1992	
4.325	0.1315	-0.009793	0.1309	0.2081	
5.419	0.3943	0.007731	0.2131	0.2173	
6.296	0.1049	-0.003647	0.1081	0.2524	

K-40	Ra-226	Cs-137	Bi-214	Pb-214
4.73	0.121	-0.0342	0.121	0.282
7.33	0.489	0	0.489	0.299
5.54	0.267	-0.0307	0.267	0.398
5.85	0.38	0	0.38	0.412
6.39	0.353	-0.00783	0.353	0.31
3.31	0.239	-0.0258	0.239	0.393
6.4 5.85	0.135 0.354	0.00282 -0.00172	0.135	0.199 0.415
י מית כ	U.354	j -U.UU1/2	0.354	U.415
4.76	0.234	-0.000264	0.234	0.353

Off-Site Laboratory (pCi/g)

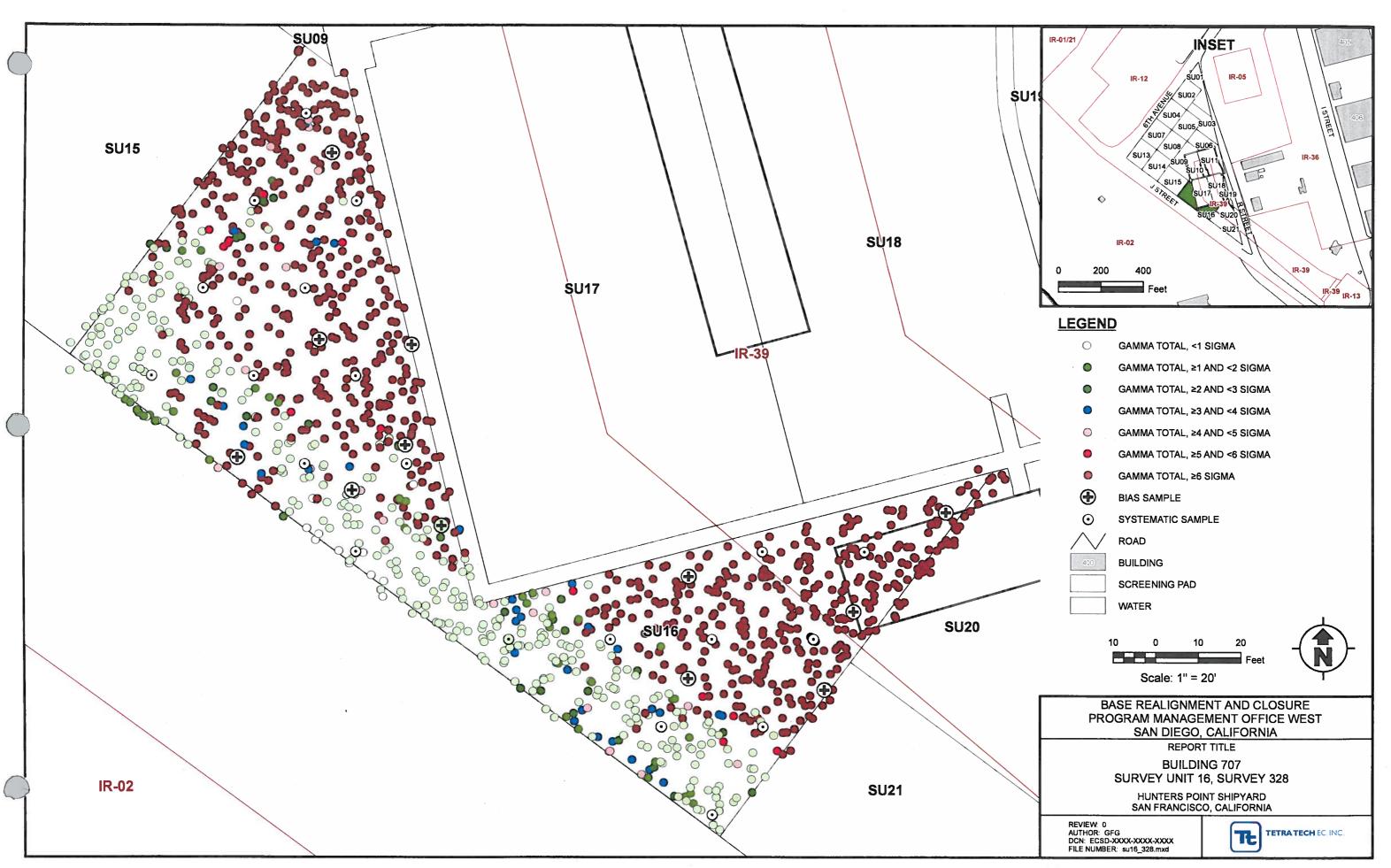
	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
707	16	54	Systematic			
707	16	55	Systematic	03707-S0016-F054-01	04-Mar-11	Jeff Rolfe
707	16	56		03707-S0016-F055-01	04-Mar-11	Jeff Rolfe
707	16	57	Systematic	03707-S0016-F056-01	04-Mar-11	Jeff Rolfe
707	16	58	Systematic	03707-S0016-F057-01	04-Mar-11	Jeff Rolfe
707	16	59	Systematic	03707-S0016-F058-01	04-Mar-11	Jeff Rolfe
707	16		Systematic	03707-S0016-F059-01	04-Mar-11	Jeff Rolfe
		60	Systematic	03707-S0016-F060-01	04-Mar-11	Jeff Rolfe
707	16	61	Systematic	03707-S0016-F061-01	04-Mar-11	Jeff Rolfe
707	16	62	Systematic	03707-S0016-F062-01	04-Mar-11	Jeff Rolfe
707	16	63	Systematic	03707-S0016-F063-01	04-Mar-11	Jeff Rolfe
707	16	ε	Systematic	03707-S0016-F064-01	04-Mar-11	Jeff Rolfe
707	16	ช5	Sr90 Remediation	03707-S0016-F065-01	06-May-11	Rick Zahensky
707	16	66	Sr90 Remediation	03707-S0016-F066-01	06-May-11	Rick Zahensky
707	16	67	Systematic	03707-S0016-FGC7 01	07-Jun-11	Jeff Rolfe
707	16	68	Systematic	03707-S0016-F068-01	07-Jun-11	Jeff Rolfe
707	16	69	Systematic	03707-S0016-F069-01	07-Jun-11	Jeff Rolfe
707	16	70	Systematic	03707-S0016-F070-01	07-Jun-11	Jeff Rolfe
707	16	71	Systematic	03707-S0016-F071-01	07-Jun-11	Jeff Rolfe
707	16	72	Systematic	03707-S0016-F072-01	07-Jun-11	Jeff Rolfe
707	16	73	Systematic	03707-S0016-F073-01	07-Jun-11	Jeff Rolfe
707	16	74	Systematic	03707-S0016-F074-01	07-Jun-11	Jeff Rolfe
707	16	75	Systematic	03707-S0016-F075-01	07-Jun-11	Jeff Rolfe
707	16	76	Systematic	03707-S0016-F076-01	07-Jun-11	Jeff Rolfe
707	16	77	Systematic	03707-S0016-F077-01	07-Jun-11	Jeff Rolfe
707	16	78	Systematic	03707-S0016-F078-01	07-Jun-11	Jeff Rolfe
707	16	79	Systematic	03707-S0016-F079-01	07-Jun-11	Jeff Rolfe
707	16	80	Systematic	03707-S0016-F080-01	07-Jun-11	Jeff Rolfe
707	16	81	Systematic	03707-S0016-F081-01	07-Jun-11	Jeff Rolfe
707	16	82	Systematic	03707-S0016-F082-01	07-Jun-11	Jeff Rolfe
707	16	83	Systematic	03707-S0016-F083-01	07-Jun-11	Jeff Rolfe
707	16	84	Systematic	03707-S0016-F084-01	07-Jun-11	Jeff Rolfe
707	16	85	Systematic	03707-S0016-F085-01	07-Jun-11	Jeff Rolfe
707	16	86	Systematic	03707-S0016-F086-01	07-Jun-11	Jeff Rolfe
707	16	87	Sr90 Remediation	03707-S0016-F087-01	04-May-12	Rick Zahensky
707	16	88	Sr90 Remediation	03707-S0016-F088-01	04-May-12	Rick Zahensky
707	16	89	Sr90 Remediation	03707-S0016-F089-01	04-May-12	Rick Zahensky
707	16	90	Sr90 Remediation	03707-S0016-F090-01	04-May-12	Rick Zahensky
707	16	91	Post-Remediation	03707-S0016-F091-01	29-Jun-12	Rick Zahensky
707	16	92	Characterization	03707-S0016-F092-01	07-Aug-12	leff Poife

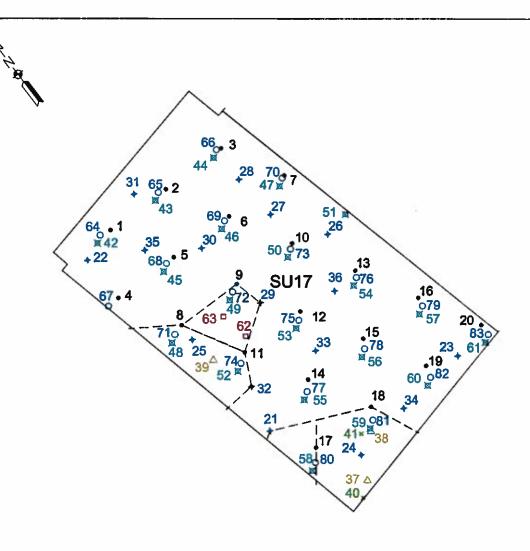
K-40	Ra-226	Cs-137	Bi-214	Pb-21
6.448	0.1772	-0.000337	0.3066	0.1182
7.27	0.3256	0.001196	0.2063	0.2104
6.321	0.1429	0.003227	0.2811	0.2283
4.77	0.253	0.002548	0.4943	0.3934
5.407	0.1624	0.003164	0.1221	0.1433
7.281	0.452	-0.003997	0.1471	0.2353
6.152	0.002317	0	0.184	0.3286
7.212	0.1016	-0.0006468	0.2156	0.2407
7.198	0.4266	-0.001584	0.2997	0.3297
5.891	0.5774	0	0.1825	0.2358
5.84	0.2994	-0.005774	0.1207	0.1984
E 407	0.5500	0.000005	0.0045	1 0000
5.497	0.5569	-0.002965	0.2645	0.2208
3.585	0.2724	-0.006602	0.1009	0.2097
5.921	0.4072	-0.0003025	0.1929	0.2087
3.912	0.2403	0.0006924	0.1092	0.0574
0.5989	0.189	0	0.03181	0.0576
1.052	0.3574	0.003927	0.05744	0.00093
0.6922	-0.08615	0.00003038	0.02316	0.00573
1.028	0.138	0.003106	0.03219	0.00589
0.4487	0.1769	0.00115	0.01864	0.0266
0.73	0.2528	0	-0.05055	0.00141
2.085	0	0	0.06933	0.0103
1.468	0.1912	-0.001889	-0.02702	0.1142
1.561	0.06709	0	0.0632	0.0918
1.395	0.09918	-0.004538	0.06217	0.0616
5.032	0.6889	-0.008213	0.02611	0.2336
2.903	0.2683	-0.008008	0.2192	0.0792
2.539	0	-0.004677	0.05441	0.1153
2.951	0.2242	-0.003493	0.07767	0.1788
5.209	0.5809	-0.005378	0.01803	0.1538
4.85	0.1707	0.00324	0.07472	0.2392
1.112	0.2955	0	0.03228	0.0275
0.8809	0.1604	-0.002972	0.03894	0

K-40	Ra-226	Cs-137	Bi-214	Pb-21
2.49	0.466	-0.0151	0.466	0.286
4.54	0.0812	-0.0374	0.0812	0.28
7.83	0.34	-0.00112	0.34	0.308
5.1	0.445	0.00511	0.445	0.3
5.86	0.314	-0.00959	0.314	0.378
4.34	0.199	-0.0194	0.199	0.327
4.37	0.356	-0.0329	0.356	0.381
7.55	0.426	0.000311	0.426	0.348
7.46	0.324	0.0292	0.324	0.332
5	0.0686	-0.0229	0.0686	0.354
4.2	0.415	0.0198	0.415	0.358
4.31	0.28	I 0.0264 I	0.28	0.3/1
		0.0264	0.28	0.341
3.19	0.175	-0.0124	0.175	0.365
3.72 4.46	0.163 0.226	-0.00933	0.163	0.43
1.59	0.226	-0.00835	0.226	0.229
0.479	0.177	0.00898	0.177 0.224	0.178
0.479	0.224	0.000167		0.0311
1.99	0.0234	0.00637	0.0254 0.0509	0.0309
0.786	0.0309	0.00637	0.0309	0.0292
1.68	0.0433	0.00883	0.0433	0.0052
2.08	0.0856	-0.0078	0.0856	0.134
2.55	0.194	0.0183	0.0030	0.123
1.84	0.135	0.000445	0.135	0.183
1.7	0.219	-0.0228	0.219	0.100
	0.162	-0.000692	0.162	0.283
		1 0.000002		
2.78		-0.0319	0 14R	0 213
2.78 2.1	0.148	-0.0319 -0.0088	0.148 0.175	
2.78 2.1 3.15	0.148 0.175	-0.0088	0.175	0.266
2.78 2.1	0.148			0.213 0.266 0.705 0.25

707 16 92 Characterization 03707-S0016-F092-01 07-Aug-12 Jeff Rolfe 0.8809

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.485; Pb-214 ≥ 1.485 (pCi/g)





LEGEND:

- SYSTEMATIC 1 SAMPLES 1-20
- BIASED SAMPLES 21-36 21
- 37 POST REMEDIATION 1 SAMPLES 37-39
- POST REMEDIATION 2 SAMPLES 40-41 40
- SYSTEMATIC 2 SAMPLES 42-61
- Sr-90 REMEDIATION SAMPLES 62-63
- SYSTEMATIC 3 SAMPLES 64-83
 - PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:30

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 17



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



TETRATECH EC, INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Booott **Background Report**

Site Area: 707 Class: 1 Survey Unit: 17 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 518 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 126182 Probe Serial #: 230161

Calibration Due Date: 11/17/2011

Reference Area Background Identification #: 518-BKGDS18 Count Time (minutes): 1.00

20130		
Rdg #	Date and Time	Gross Gamma CPM
1	03/01/2011 10:24	5734
2	03/01/2011 10:26	6197
3	03/01/2011 10:27	5923
4	03/01/2011 10:28	5458
5	03/01/2011 10:29	6885
6	03/01/2011 10:30	5930
7	03/01/2011 10:31	5459
8	03/01/2011 10:32	5899
9	03/01/2011 10:34	5865
10	03/01/2011 10:35	5347
11	03/01/2011 10:36	5470
12	03/01/2011 10:37	5852
13	03/01/2011 10:38	6022
14	03/01/2011 10:40	6222
15	03/01/2011 10:41	5742
16	03/01/2011 10:42	5119
17	03/01/2011 10:43	5970
18	03/01/2011 10:44	5959
19	03/01/2011 10:45	6120
20	03/01/2011 10:46	6291

Gamma Mean Background (cpm):

5873

Standard Deviation:

392

Gamma 3_o Investigation

7049

Level (cpm):



Survey Unit: 17 Class: 1 Site Area: 707 Area: 907.33 m² Count Time: 1 min

	17 17 17 17 17 17 17 17 17 17 17 17 17 1	Gamma CPM	Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/19/2010 7:36	6906	5817	1089	479-BKGDS1A	7378	THE RESERVE OF THE PERSON OF T
2	11/19/2010 7:37	5775	5817	-42	479-BKGDS1A	7378	
3	11/19/2010 7:39	5294	5817	-523	479-BKGDS1A	7378	
4	11/19/2010 7:40	6744	5817	927	479-BKGDS1A	7378	
5	11/19/2010 7:42	7548	5817	1731	479-BKGDS1A	7378	
6	11/19/2010 7:43	5983	5817	166	479-BKGDS1A	7378	
7	11/19/2010 7:44	5717	5817	-100	479-BKGDS1A	7378	
8	11/19/2010 7:45	7440	5817	1623	479-BKGDS1A	7378	
9	11/19/2010 7:47	8010	5817	2193	479-BKGDS1A	7378	
10	11/19/2010 7:48	6838	5817	1021	479-BKGDS1A	7378	
11	11/19/2010 7:50	7831	5817	2014	479-BKGDS1A	7378	
12	11/19/2010 7:51	6979	5817	1162	479-BKGDS1A	7378	
13	11/19/2010 7:52	7332	5817	1515	479-BKGDS1A	7378	
14	11/19/2010 7:54	7899	5817	2082	479-BKGDS1A	7378	
15	11/19/2010 7:55	6929	5817	1112	479-BKGDS1A	7378	
16	11/19/2010 7:56	4743	5817	-1074	479-BKGDS1A	7378	
17	11/19/2010 7:58	7612	5817	1795	479-BKGDS1A	7378	
18	11/19/2010 7:59	6603	5817	786	479-BKGDS1A	7378	7 44452 2
19	11/19/2010 8:00	5740	5817	-7 7	479-BKGDS1A	7378	
20	11/19/2010 8:01	7859	5817	2042	479-BKGDS1A	7378	
21	11/30/2010 10:14	6537	5817	720	479-BKGDS1A	7378	
22	11/30/2010 10:15	8550	5817	2733	479-BKGDS1A	7378	
23	11/30/2010 10:16	8490	5817	2673	479-BKGDS1A	7378	
24	11/30/2010 10:18	8384	5817	2567	479-BKGDS1A	7378	
25	11/30/2010 10:19	9743	5817	3926	479-BKGDS1A	7378	
26	11/30/2010 10:20	7123	5817	1306	479-BKGDS1A	7378	
27	11/30/2010 10:22	6675	5817	858	479-BKGDS1A	7378	
28	11/30/2010 10:23	7298	5817	1481	479-BKGDS1A	7378	
29	11/30/2010 10:24	7513	5817	1696	479-BKGDS1A	7378	
30	11/30/2010 10:25	8396	5817	2579	479-BKGDS1A	7378	No. Section 1
31	11/30/2010 10:27	8138	5817	2321	479-BKGDS1A	7378	
32	11/30/2010 10:28	7563	5817	1746	479-BKGDS1A	7378	



Area: 907.33 m² Count Time: 1 min Site Area: 707 Class: 1 Survey Unit: 17

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/30/2010 10:29	9326	5817	3509	479-BKGDS1A	7378	
34	11/30/2010 10:30	8329	5817	2512	479-BKGDS1A	7378	
35	11/30/2010 10:32	7942	5817	2125	479-BKGDS1A	7378	
36	11/30/2010 10:33	8117	5817	2300	479-BKGDS1A	7378	
37	1/17/2011 11:29	9088	5817	3271	479-BKGDS1A	7378	
38	1/17/2011 11:35	5862	5817	45	479-BKGDS1A	7378	
39	1/17/2011 11:39	8378	5817	2561	479-BKGDS1A	7378	
40	2/15/2011 13:34	5370	5817	-447	479-BKGDS1A	7378	
41	2/15/2011 13:36	4533	5817	-1284	479-BKGDS1A	7378	
42	3/8/2011 11:04	7043	5817	1226	479-BKGDS1A	7378	
43	3/8/2011 11:06	6535	5817	718	479-BKGDS1A	7378	
14	3/8/2011 11:07	5131	5817	-686	479-BKGDS1A	7378	
15	3/8/2011 11:08	7033	5817	1216	479-BKGDS1A	7378	
16	3/8/2011 11:10	6310	5817	493	479-BKGDS1A	7378	
17	3/8/2011 11:11	5874	5817	57	479-BKGDS1A	7378	
48	3/8/2011 11:12	6395	5817	578	479-BKGDS1A	7378	1
19	3/8/2011 11:13	7675	5817	1858	479-BKGDS1A	7378	
50	3/8/2011 11:15	6672	5817	855	479-BKGDS1A	7378	
51	3/8/2011 11:16	5932	5817	115	479-BKGDS1A	7378	
52	3/8/2011 11:17	7433	5817	1616	479-BKGDS1A	7378	
53	3/8/2011 11:19	7312	5817	1495	479-BKGDS1A	7378	
54	3/8/2011 11:20	6416	5817	599	479-BKGDS1A	7378	
55	3/8/2011 11:21	7453	5817	1636	479-BKGDS1A	7378	
56	3/8/2011 11:22	4662	5817	-1155	479-BKGDS1A	7378	- 100 -
57	3/8/2011 11:24	4473	5817	-1344	479-BKGDS1A	7378	
58	3/8/2011 11:25	7270	5817	1453	479-BKGDS1A	7378	
59	3/8/2011 11:26	4503	5817	-1314	479-BKGDS1A	7378	
60	3/8/2011 11:28	7460	5817	1643	479-BKGDS1A	7378	
61	3/8/2011 11:29	7269	5817	1452	479-BKGDS1A	7378	
62	5/6/2011 11:11	5440	5817	-377	479-BKGDS1A	7378	
63	5/6/2011 11:12	8228	5817	2411	479-BKGDS1A	7378	
64	6/8/2011 11:02	6993	5873	1120	518-BKGDS1B	7049	



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 707 Area: 907.33 m² Survey Unit: 17 Class: 1 Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	6/8/2011 11:03	5038	5873	-835	518-BKGDS1B	7049	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
66	6/8/2011 11:04	4680	5873	-1193	518-BKGDS1B	7049	
67	6/8/2011 11:06	6890	5873	1017	518-BKGDS1B	7049	
68	6/8/2011 11:07	5865	5873	-8	518-BKGDS1B	7049	
69	6/8/2011 11:08	6848	5873	975	518-BKGDS1B	7049	
70	6/8/2011 11:09	5563	5873	-310	518-BKGDS1B	7049	
71	6/8/2011 11:10	6237	5873	364	518-BKGDS1B	7049	
72	6/8/2011 11:11	6179	5873	306	518-BKGDS1B	7049	
73	6/8/2011 11:14	6310	5873	437	518-BKGDS1B	7049	
74	6/8/2011 11:15	6600	5873	727	518-BKGDS1B	7049	
75	6/8/2011 11:17	6518	5873	645	518-BKGDS1B	7049	
76	6/8/2011 11:18	6446	5873	573	518-BKGDS1B	7049	
77	6/8/2011 11:19	6463	5873	590	518-BKGDS1B	7049	
78	6/8/2011 11:20	6532	5873	659	518-BKGDS1B	7049	— — p p p q q
79	6/8/2011 11:21	6498	5873	625	518-BKGDS1B	7049	
80	6/8/2011 11:22	4985	5873	-888	518-BKGDS1B	7049	
81	6/8/2011 11:23	5868	5873	-5	518-BKGDS1B	7049	
82	6/8/2011 11:24	5098	5873	-775	518-BKGDS1B	7049	
83	6/8/2011 11:26	5946	5873	73	518-BKGDS1B	7049	

Net Gamma cpm Summary Min: -1344

Avg: 931

Max: 3926

St Dev: 1188

Readings > 3σ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3σ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area **Background Report**

Site Area: 707

Survey Unit: 17

Class: 1

Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

23S0 Identification #: 479

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430

Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-BKGDS1A Count Time (minutes): 1.00

Rdg#	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm):

5817

Standard Deviation:

520

Gamma 3_o Investigation

7378

Level (cpm):



TETRATECH EC, INC. Gamma Direct Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	СРМ		Level (cpm)	
1	11/19/2010 7:34	116	158	-42	512-BKGDS1A	387	to the second se
2	11/19/2010 7:35	132	158	-26	512-BKGDS1A	387	
3	11/19/2010 7:37	145	158	-13	512-BKGDS1A	387	
4	11/19/2010 7:38	131	158	-27	512-BKGDS1A	387	
5	11/19/2010 7:39	171	158	13	512-BKGDS1A	387	
6	11/19/2010 7:41	146	158	-12	512-BKGDS1A	387	11/25
7	11/19/2010 7:42	125	158	-33	512-BKGDS1A	387	
8	11/19/2010 7:43	155	158	-3	512-BKGDS1A	387	
9	11/19/2010 7:45	151	158	-7	512-BKGDS1A	387	
10	11/19/2010 7:46	152	158	-6	512-BKGDS1A	387	
11	11/19/2010 7:47	151	158	-7	512-BKGDS1A	387	
12	11/19/2010 7:49	154	158	-4	512-BKGDS1A	387	
13	11/19/2010 7:50	155	158	-3	512-BKGDS1A	387	
14	11/19/2010 7:51	152	158	-6	512-BKGDS1A	387	
15	11/19/2010 7:53	139	158	-19	512-BKGDS1A	387	4.0
16	11/19/2010 7:54	102	158	-56	512-BKGDS1A	387	and the second s
17	11/19/2010 7:55	137	158	-21	512-BKGDS1A	387	
18	11/19/2010 7:56	135	158	-23	512-BKGDS1A	387	
19	11/19/2010 7:57	133	158	-25	512-BKGDS1A	387	
20	11/19/2010 7:59	149	158	-9	512-BKGDS1A	387	
21	11/30/2010 8:15	220	158	62	512-BKGDS1A	387	
22	11/30/2010 8:20	154	158	-4	512-BKGDS1A	387	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
23	11/30/2010 8:22	152	158	-6	512-BKGDS1A	387	
24	11/30/2010 8:25	162	158	4	512-BKGDS1A	387	
25	11/30/2010 8:28	157	158	-1	512-BKGDS1A	387	
26	11/30/2010 8:33	170	158	12	512-BKGDS1A	387	
27	11/30/2010 8:35	155	158	-3	512-BKGDS1A	387	
28	11/30/2010 8:36	160	158	2	512-BKGDS1A	387	
29	11/30/2010 8:37	145	158	-13	512-BKGDS1A	387	
30	11/30/2010 8:40	151	158	-7	512-BKGDS1A	387	
31	11/30/2010 8:42	146	158	-12	512-BKGDS1A	387	Line of the state
32	11/30/2010 9:26	174	158	16	512-BKGDS1A	387	792 (1985) - 318 (1985)



Count Time: 1 min Area: 907.33 m² Site Area: 707 Survey Unit: 17 Class: 1

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/30/2010 9:28	175	158	17	512-BKGDS1A	387	
34	11/30/2010 9:29	154	158	-4	512-BKGDS1A	387	3065 (195)
35	11/30/2010 9:31	145	158	-13	512-BKGDS1A	387	
36	11/30/2010 9:32	148	158	-10	512-BKGDS1A	387	
37	1/17/2011 12:42	218	158	60	512-BKGDS1A	387	
38	1/17/2011 12:44	180	158	22	512-BKGDS1A	387	
39	1/17/2011 12:45	186	158	28	512-BKGDS1A	387	
40	2/15/2011 13:58	202	158	44	512-BKGDS1A	387	
41	2/15/2011 14:00	208	158	50	512-BKGDS1A	387	
42	3/8/2011 11:34	169	158	11	512-BKGDS1A	387	10.00 = 1444444444
43	3/8/2011 11:35	193	158	35	512-BKGDS1A	387	14/1
44	3/8/2011 11:36	167	158	9	512-BKGDS1A	387	
45	3/8/2011 11:38	172	158	14	512-BKGDS1A	387	
46	3/8/2011 11:39	176	158	18	512-BKGDS1A	387	
47	3/8/2011 11:40	164	158	6	512-BKGDS1A	387	
48	3/8/2011 11:41	139	158	-19	512-BKGDS1A	387	
49	3/8/2011 11:43	155	158	-3	512-BKGDS1A	387	
50	3/8/2011 11:44	157	158	-1	512-BKGDS1A	387	
51	3/8/2011 11:45	135	158	-23	512-BKGDS1A	387	-14.50
52	3/8/2011 11:47	164	158	6	512-BKGDS1A	387	
53	3/8/2011 11:48	166	158	8	512-BKGDS1A	387	
54	3/8/2011 11:49	158	158	0	512-BKGDS1A	387	
55	3/8/2011 11:50	140	158	-18	512-BKGDS1A	387	
56	3/8/2011 11:51	140	158	-18	512-BKGDS1A	387	
57	3/8/2011 11:52	130	158	-28	512-BKGDS1A	387	
58	3/8/2011 12:41	196	158	38	512-BKGDS1A	387	131399711 = 10
59	3/8/2011 12:42	136	158	-22	512-BKGDS1A	387	RO RESIDENCE
60	3/8/2011 12:43	145	158	-13	512-BKGDS1A	387	
61	3/8/2011 12:45	202	158	44	512-BKGDS1A	387	2 20 20 20 20 20 20 20 20 20 20 20 20 20
62	5/6/2011 11:08	209	158	51	512-BKGDS1A	387	
63	5/6/2011 11:09	178	158	20	512-BKGDS1A	387	
64	6/8/2011 10:40	180	158	22	512-BKGDS1A	387	



TETRATECH EC, INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	6/8/2011 10:41	177	158	19	512-BKGDS1A	387	
66	6/8/2011 11:00	133	158	-25	512-BKGDS1A	387	
67	6/8/2011 11:01	135	158	-23	512-BKGDS1A	387	
68	6/8/2011 11:02	171	158	13	512-BKGDS1A	387	
69	6/8/2011 11:04	142	158	-16	512-BKGDS1A	387	
70	6/8/2011 11:05	138	158	-20	512-BKGDS1A	387	
71	6/8/2011 11:06	148	158	-10	512-BKGDS1A	387	
72	6/8/2011 11:07	137	158	-21	512-BKGDS1A	387	
73	6/8/2011 11:08	144	158	-14	512-BKGDS1A	387	
74	6/8/2011 11:09	153	158	-5	512-BKGDS1A	387	
75	6/8/2011 11:10	132	158	-26	512-BKGDS1A	387	
76	6/8/2011 11:11	129	158	-29	512-BKGDS1A	387	
77	6/8/2011 11:17	136	158	-22	512-BKGDS1A	387	
78	6/8/2011 11:18	124	158	-34	512-BKGDS1A	387	
79	6/8/2011 11:19	128	158	-30	512-BKGDS1A	387	
80	6/8/2011 11:20	157	158	-1	512-BKGDS1A	387	
81	6/8/2011 11:21	135	158	-23	512-BKGDS1A	387	
82	6/8/2011 11:22	104	158	-54	512-BKGDS1A	387	
83	6/8/2011 11:23	147	158	-11	512-BKGDS1A	387	

Net Gamma cpm Summary Min: -56

Avg: -3

Max: 62

St Dev: 24

Readings $> 3\sigma$ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	11/10/2010 14:43	168	158	10	512-BKGDS1A	387	
2	11/10/2010 14:43	97	158	-61	512-BKGDS1A	387	VIII.
3	11/10/2010 14:43	146	158	-12	512-BKGDS1A	387	
4	11/10/2010 14:44	133	158	-25	512-BKGDS1A	387	
5	11/10/2010 14:44	173	158	15	512-BKGDS1A	387	
6	11/10/2010 14:44	158	158	0	512-BKGDS1A	387	
7	11/10/2010 14:44	137	158	-21	512-BKGDS1A	387	
8	11/10/2010 14:44	121	158	-37	512-BKGDS1A	387	
9	11/10/2010 14:44	148	158	-10	512-BKGDS1A	387	38 19
10	11/10/2010 14:44	143	158	-15	512-BKGDS1A	387	
11	11/10/2010 14:44	147	158	-11	512-BKGDS1A	387	
12	11/10/2010 14:44	128	158	-30	512-BKGDS1A	387	NATE OF THE PARTY
13	11/10/2010 14:45	127	158	-31	512-BKGDS1A	387	
14	11/10/2010 14:45	118	158	-40	512-BKGDS1A	387	
15	11/10/2010 14:45	121	158	-37	512-BKGDS1A	387	
16	11/10/2010 14:45	177	158	19	512-BKGDS1A	387	
17	11/10/2010 14:45	180	158	22	512-BKGDS1A	387	
18	11/10/2010 14:45	174	158	16	512-BKGDS1A	387	
19	11/10/2010 14:45	149	158	-9	512-BKGDS1A	387	
20	11/10/2010 14:45	190	158	32	512-BKGDS1A	387	
21	11/10/2010 14:46	165	158	7	512-BKGDS1A	387	
22	11/10/2010 14:46	153	158	-5	512-BKGDS1A	387	
23	11/10/2010 14:46	150	158	-8	512-BKGDS1A	387	
24	11/10/2010 14:46	123	158	-35	512-BKGDS1A	387	
25	11/10/2010 14:46	152	158	-6	512-BKGDS1A	387	
26	11/10/2010 14:46	126	158	-32	512-BKGDS1A	387	Will Lake I
27	11/10/2010 14:46	127	158	-31	512-BKGDS1A	387	
28	11/10/2010 14:46	119	158	-39	512-BKGDS1A	387	
29	11/10/2010 14:46	120	158	-38	512-BKGDS1A	387	
30	11/10/2010 14:47	132	158	-26	512-BKGDS1A	387	
31	11/10/2010 14:47	148	158	-10	512-BKGDS1A	387	
32	11/10/2010 14:47		158	-16	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	11/10/2010 14:47	178	158	20	512-BKGDS1A	387	
34	11/10/2010 14:47	166	158	8	512-BKGDS1A	387	
35	11/10/2010 14:47	138	158	-20	512-BKGDS1A	387	
36	11/10/2010 14:47	117	158	-41	512-BKGDS1A	387	1,000
37	11/10/2010 14:47	137	158	-21	512-BKGDS1A	387	
38	11/10/2010 14:48	137	158	-21	512-BKGDS1A	387	
39	11/10/2010 14:48	154	158	-4	512-BKGD\$1A	387	
40	11/10/2010 14:48	173	158	15	512-BKGDS1A	387	
41	11/10/2010 14:48	145	158	-13	512-BKGDS1A	387	
42	11/10/2010 14:48	135	158	-23	512-BKGDS1A	387	700
43	11/10/2010 14:48	127	158	-31	512-BKGDS1A	387	
44	11/10/2010 14:49	95	158	-63	512-BKGDS1A	387	
45	11/10/2010 14:49	101	158	-57	512-BKGDS1A	387	
46	11/10/2010 14:49	146	158	-12	512-BKGDS1A	387	
47	11/10/2010 14:49	134	158	-24	512-BKGDS1A	387	
48	11/10/2010 14:50	149	158	-9	512-BKGDS1A	387	
49	11/10/2010 14:50	150	158	-8	512-BKGDS1A	387	
50	11/10/2010 14:50	150	158	-8	512-BKGDS1A	387	
51	11/10/2010 14:50	142	158	-16	512-BKGDS1A	387	
52	11/10/2010 14:50	190	158	32	512-BKGDS1A	387	Suppose
53	11/10/2010 14:50	155	158	-3	512-BKGDS1A	387	
54	11/10/2010 14:50	143	158	-15	512-BKGDS1A	387	
55	11/10/2010 14:50	137	158	-21	512-BKGDS1A	387	
56	11/10/2010 14:50	117	158	-41	512-BKGDS1A	387	
57	11/10/2010 14:51	125	158	-33	512-BKGDS1A	387	
58	11/10/2010 14:51	127	158	-31	512-BKGDS1A	387	
59	11/10/2010 14:51	132	158	-26	512-BKGDS1A	387	74.7
60	11/10/2010 14:51	135	158	-23	512-BKGDS1A	387	
61	11/10/2010 14:51	137	158	-21	512-BKGDS1A	387	
62	11/10/2010 14:51	124	158	-34	512-BKGDS1A	387	
63	11/10/2010 14:51	138	158	-20	512-BKGDS1A	387	
64	11/10/2010 14:51	109	158	-49	512-BKGDS1A	387	



Area: 907.33 m² Survey Unit: 17 Class: 1 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
65 65	11/10/2010 14:52	160	158	2	512-BKGDS1A	387		
66	11/10/2010 14:52	192	158	34	512-BKGDS1A	387		ĺ
67	11/10/2010 14:52	192	158	34	512-BKGDS1A	387		ĺ
68	11/10/2010 14:52	172	158	14	512-BKGDS1A	387		
59	11/10/2010 14:52	152	158	-6	512-BKGDS1A	387		ĺ
70	11/10/2010 14:52	139	158	-19	512-BKGDS1A	387		
71	11/10/2010 14:52	117	158	-41	512-BKGDS1A	387		
72	11/10/2010 14:52	125	158	-33	512-BKGDS1A	387		
73	11/10/2010 14:52	125	158	-33	512-BKGDS1A	387		ı
74	11/10/2010 14:53	135	158	-23	512-BKGDS1A	387	The second secon	
75	11/10/2010 14:53	148	158	-10	512-BKGDS1A	387		ı
76	11/10/2010 14:53	126	158	-32	512-BKGDS1A	387		Ĺ
77	11/10/2010 14:53	111	158	-47	512-BKGDS1A	387		1
78	11/10/2010 14:53	82	158	-76	512-BKGDS1A	387		ĺ
79	11/10/2010 14:53	107	158	-51	512-BKGDS1A	387		Ì
BO	11/10/2010 14:53	91	158	-67	512-BKGDS1A	387		Ì
B1	11/10/2010 14:53	117	158	-41	512-BKGDS1A	387		İ
B2	11/10/2010 14:54	105	158	-53	512-BKGDS1A	387		
83	11/10/2010 14:54	123	158	-35	512-BKGDS1A	387		Ī
84	11/10/2010 14:54	114	158	-44	512-BKGDS1A	387		ĺ
85	11/10/2010 14:54	124	158	-34	512-BKGDS1A	387		Ì
86	11/10/2010 14:54	149	158	-9	512-BKGDS1A	387		Ī
87	11/10/2010 14:55	54	158	-104	512-BKGDS1A	387		Ì
88	11/10/2010 14:55	109	158	-49	512-BKGDS1A	387		١
89	11/10/2010 14:55	134	158	-24	512-BKGDS1A	387		١
90	11/10/2010 14:55	130	158	-28	512-BKGDS1A	387		١
91	11/10/2010 14:55	135	158	-23	512-BKGDS1A	387		١
92	11/10/2010 14:55	143	158	-15	512-BKGDS1A	387		j
93	11/10/2010 14:55	133	158	-25	512-BKGDS1A	387		j
94	11/10/2010 14:55	178	158	20	512-BKGDS1A	387		
95	11/10/2010 14:56		158	2	512-BKGDS1A	387		ĺ
96	11/10/2010 14:56		158	-28	512-BKGDS1A	387		



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

							Employed Total Color Co.
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation	Comments
97	11/10/2010 14:56				E43 DVCDC4 A	Level (cpm)	
-		150	158	-8	512-BKGDS1A	387	
98	11/10/2010 14:56	138	158	-20	512-BKGDS1A	387	
99	11/10/2010 14:56	154	158	-4	512-BKGDS1A	387	
100	11/10/2010 14:56	187	158	29	512-BKGDS1A	387	
101	11/10/2010 14:56	167	158	9	512-BKGDS1A	387	
102	11/10/2010 14:56	154	158	-4	512-BKGDS1A	387	
103	11/10/2010 14:56	149	158	-9	512-BKGDS1A	387	
104	11/10/2010 14:57	175	158	17	512-BKGDS1A	387	
105	11/10/2010 14:57	150	158	-8	512-BKGDS1A	387	The state of the s
106	11/10/2010 14:57	118	158	-40	512-BKGDS1A	387	
107	11/10/2010 14:57	176	158	18	512-BKGDS1A	387	
108	11/10/2010 14:57	163	158	5	512-BKGDS1A	387	
109	11/10/2010 14:57	190	158	32	512-BKGDS1A	387	
110	11/10/2010 14:57	178	158	20	512-BKGDS1A	387	
111	11/10/2010 14:57	158	158	0	512-BKGDS1A	387	
112	11/10/2010 14:57	130	158	-28	512-BKGDS1A	387	
113	11/10/2010 14:58	137	158	-21	512-BKGDS1A	387	
114	11/10/2010 14:58	167	158	9	512-BKGD\$1A	387	
115	11/10/2010 14:58	146	158	-12	512-BKGDS1A	387	
116	11/10/2010 14:58	141	158	-17	512-BKGDS1A	387	
117	11/10/2010 14:58	134	158	-24	512-BKGDS1A	387	
118	11/10/2010 14:58	93	158	-65	512-BKGDS1A	387	
119	11/10/2010 14:58	125	158	-33	512-BKGDS1A	387	
120	11/10/2010 14:58	125	158	-33	512-BKGDS1A	387	
121	11/10/2010 14:59	88	158	-70	512-BKGDS1A	387	
122	11/10/2010 14:59	108	158	-50	512-BKGDS1A	387	
123	11/10/2010 14:59	92	158	-66	512-BKGDS1A	387	
124	11/10/2010 14:59	122	158	-36	512-BKGDS1A	387	
125	11/10/2010 14:59	115	158	-43	512-BKGDS1A	387	
126	11/10/2010 14:59	158	158	0	512-BKGDS1A	387	
127	11/10/2010 14:59	136	158	-22	512-BKGDS1A	387	
128	11/10/2010 14:59	135	158	-23	512-BKGDS1A	387	



Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

1							
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
129	11/10/2010 14:59	99	158	-59	512-BKGDS1A	387	
130	11/10/2010 15:00	53	158	-105	512-BKGDS1A	387	
131	11/10/2010 15:00	110	158	-48	512-BKGDS1A	387	
132	11/10/2010 15:00	158	158	0	512-BKGDS1A	387	
133	11/10/2010 15:00	139	158	-19	512-BKGDS1A	387	
134	11/10/2010 15:00	126	158	-32	512-BKGDS1A	387	
135	11/10/2010 15:00	129	158	-29	512-BKGDS1A	387	
136	11/10/2010 15:01	151	158	-7	512-BKGDS1A	387	
137	11/10/2010 15:01	148	158	-10	512-BKGDS1A	387	
138	11/10/2010 15:01	153	158	-5	512-BKGDS1A	387	
139	11/10/2010 15:01	157	158	-1	512-BKGDS1A	387	
140	11/10/2010 15:01	130	158	-28	512-BKGDS1A	387	
141	11/10/2010 15:01	132	158	-26	512-BKGDS1A	387	100 100 100 100 100 100 100 100 100 100
142	11/10/2010 15:01	140	158	-18	512-BKGDS1A	387	
143	11/10/2010 15:01	127	158	-31	512-BKGDS1A	387	
144	11/10/2010 15:01	131	158	-27	512-BKGDS1A	387	
145	11/10/2010 15:02	149	158	-9	512-BKGDS1A	387	
146	11/10/2010 15:02	96	158	-62	512-BKGDS1A	387	
147	11/10/2010 15:02	110	158	-48	512-BKGDS1A	387	
148	11/10/2010 15:02	105	158	-53	512-BKGDS1A	387	
149	11/10/2010 15:02	144	158	-14	512-BKGDS1A	387	
150	11/10/2010 15:02	180	158	22	512-BKGDS1A	387	
151	11/10/2010 15:02	187	158	29	512-BKGDS1A	387	
152	11/10/2010 15:02	153	158	-5	512-BKGDS1A	387	
153	11/10/2010 15:03	165	158	7	512-BKGDS1A	387	
154	11/10/2010 15:03	163	158	5	512-BKGDS1A	387	u di no marin
155	11/10/2010 15:03	131	158	-27	512-BKGDS1A	387	
156	11/10/2010 15:03	127	158	-31	512-BKGDS1A	387	
157	11/10/2010 15:03	105	158	-53	512-BKGDS1A	387	
158	11/10/2010 15:03	147	158	-11	512-BKGDS1A	387	
159	11/10/2010 15:03	156	158	-2	512-BKGDS1A	387	
160	11/10/2010 15:03		158	-3	512-BKGDS1A	387	



Area: 907.33 m² Survey Unit: 17 Site Area: 707 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
161	11/10/2010 15:03	154	158	-4	512-BKGDS1A	387	
162	11/10/2010 15:04	142	158	-16	512-BKGDS1A	387	
163	11/10/2010 15:04	131	158	-27	512-BKGDS1A	387	
164	11/10/2010 15:04	103	158	-55	512-BKGDS1A	387	
165	11/10/2010 15:04	116	158	-42	512-BKGDS1A	387	
166	11/10/2010 15:04	157	158	-1	512-BKGDS1A	387	
167	11/10/2010 15:04	158	158	0	512-BKGDS1A	387	
168	11/10/2010 15:04	136	158	-22	512-BKGDS1A	387	
169	11/10/2010 15:04	182	158	24	512-BKGDS1A	387	
170	11/10/2010 15:05	163	158	5	512-BKGDS1A	387	- 2000-180000 10 100000 100
171	11/10/2010 15:05	149	158	-9	512-BKGDS1A	387	2 (23) (2 (23) (23) (23) (23) (23) (23)
172	11/10/2010 15:05	140	158	-18	512-BKGDS1A	387	
173	11/10/2010 15:05	75	158	-83	512-BKGDS1A	387	
174	11/10/2010 15:05	119	158	-39	512-BKGDS1A	387	
175	11/10/2010 15:05	112	158	-46	512-BKGDS1A	387	
176	11/10/2010 15:06	131	158	-27	512-BKGDS1A	387	ON THE AS WANTED THE PROPERTY OF
177	11/10/2010 15:06	121	158	-37	512-BKGDS1A	387	
178	11/10/2010 15:06	148	158	-10	512-BKGDS1A	387	
179	11/10/2010 15:06	162	158	4	512-BKGDS1A	387	
180	11/10/2010 15:06	133	158	-25	512-BKGDS1A	387	
181	11/10/2010 15:06	90	158	-68	512-BKGDS1A	387	
182	11/10/2010 15:06	163	158	5	512-BKGDS1A	387	
183	11/10/2010 15:06	153	158	- 5	512-BKGDS1A	387	
184	11/10/2010 15:06	148	158	-10	512-BKGDS1A	387	
185	11/10/2010 15:07	111	158	-47	512-BKGDS1A	387	
186	11/10/2010 15:07	178	158	20	512-BKGDS1A	387	
187	11/10/2010 15:07	180	158	22	512-BKGDS1A	387	
188	11/10/2010 15:07	196	158	38	512-BKGDS1A	387	
189	11/10/2010 15:07	150	158	-8	512-BKGDS1A	387	
190	11/10/2010 15:07	168	158	10	512-BKGDS1A	387	
191	11/10/2010 15:07	176	158	18	512-BKGDS1A	387	***
192	11/10/2010 15:07	197	158	39	512-BKGDS1A	387	



Area: 907.33 m² Site Area: 707 Survey Unit: 17 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
193	11/10/2010 15:08	150	158	-8	512-BKGDS1A	387	W 12	
194	11/10/2010 15:08	183	158	25	512-BKGDS1A	387		
195	11/10/2010 15:08	169	158	11	512-BKGDS1A	387		
196	11/10/2010 15:08	132	158	-26	512-BKGDS1A	387		
197	11/10/2010 15:08	116	158	-42	512-BKGDS1A	387		
198	11/10/2010 15:08	138	158	-20	512-BKGDS1A	387		
199	11/10/2010 15:08	110	158	-48	512-BKGDS1A	387		
200	11/10/2010 15:08	146	158	-12	512-BKGDS1A	387		
201	11/10/2010 15:08	151	158	-7	512-BKGDS1A	387		
202	11/10/2010 15:09	147	158	-11	512-BKGDS1A	387		
203	11/10/2010 15:09	179	158	21	512-BKGDS1A	387		
204	11/10/2010 15:09	122	158	-36	512-BKGDS1A	387		-
205	11/10/2010 15:09	143	158	-15	512-BKGDS1A	387		
206	11/10/2010 15:09	144	158	-14	512-BKGDS1A	387		
207	11/10/2010 15:09	184	158	26	512-BKGDS1A	387		
208	11/10/2010 15:09	188	158	30	512-BKGDS1A	387		
209	11/10/2010 15:09	181	158	23	512-BKGDS1A	387		
210	11/10/2010 15:10	184	158	26	512-BKGDS1A	387		
211	11/10/2010 15:10	188	158	30	512-BKGDS1A	387		
212	11/10/2010 15:10	160	158	2	512-BKGDS1A	387		
213	11/10/2010 15:18	74	158	-84	512-BKGDS1A	387		
214	11/10/2010 15:19	88	158	-70	512-BKGDS1A	387		
215	11/10/2010 15:19	141	158	-17	512-BKGDS1A	387		
216	11/10/2010 15:19	119	158	-39	512-BKGDS1A	387	As Series is the second	
217	11/10/2010 15:19	165	158	7	512-BKGDS1A	387		
218	11/10/2010 15:19	147	158	-11	512-BKGDS1A	387		
219	11/10/2010 15:19	165	158	7	512-BKGDS1A	387		
220	11/10/2010 15:19	175	158	17	512-BKGDS1A	387		
221	11/10/2010 15:19	150	158	-8	512-BKGDS1A	387		
222	11/10/2010 15:20	154	158	-4	512-BKGDS1A	387		-
223	11/10/2010 15:20	170	158	12	512-BKGDS1A	387	1	(
224	11/10/2010 15:20	176	158	18	512-BKGDS1A	387		



TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3ø Investigation Level (cpm)	Comments
225	11/10/2010 15:20	149	158	-9	512-BKGDS1A	387	
226	11/10/2010 15:20	131	158	-27	512-BKGDS1A	387	
227	11/10/2010 15:20	139	158	-19	512-BKGDS1A	387	
228	11/10/2010 15:20	148	158	-10	512-BKGDS1A	387	
229	11/10/2010 15:20	224	158	66	512-BKGDS1A	387	
230	11/10/2010 15:20	185	158	27	512-BKGDS1A	387	- Volume Resignation
231	11/10/2010 15:21	179	158	21	512-BKGDS1A	387	
232	11/10/2010 15:21	164	158	6	512-BKGDS1A	387	
233	11/10/2010 15:21	192	158	34	512-BKGDS1A	387	
234	11/10/2010 15:21	155	158	-3	512-BKGDS1A	387	
235	11/10/2010 15:21	165	158	7	512-BKGDS1A	387	
236	11/10/2010 15:21	155	158	-3	512-BKGDS1A	387	
237	11/10/2010 15:21	142	158	-16	512-BKGDS1A	387	
238	11/10/2010 15:21	192	158	34	512-BKGDS1A	387	
239	11/10/2010 15:22	143	158	-15	512-BKGDS1A	387	
240	11/10/2010 15:22	181	158	23	512-BKGDS1A	387	
241	11/10/2010 15:22	173	158	15	512-BKGDS1A	387	
242	11/10/2010 15:22	138	158	-20	512-BKGDS1A	387	
243	11/10/2010 15:22	150	158	-8	512-BKGDS1A	387	
244	11/10/2010 15:22	160	158	2	512-BKGDS1A	387	
245	11/10/2010 15:22	195	158	37	512-BKGDS1A	387	200 Sept. 100 Se
246	11/10/2010 15:22	151	158	-7	512-BKGDS1A	387	
247	11/10/2010 15:22	129	158	-29	512-BKGDS1A	387	
248	11/10/2010 15:23	160	158	2	512-BKGDS1A	387	
249	11/10/2010 15:23	135	158	-23	512-BKGDS1A	387	
250	11/10/2010 15:23	106	158	-52	512-BKGDS1A	387	
251	11/10/2010 15:23	115	158	-43	512-BKGDS1A	387	
252	11/10/2010 15:23	107	158	-51	512-BKGDS1A	387	
253	11/10/2010 15:23	120	158	-38	512-BKGDS1A	387	
254	11/10/2010 15:23	121	158	-37	512-BKGDS1A	387	
255	11/10/2010 15:23	90	158	-68	512-BKGDS1A	387	
256	11/10/2010 15:24	131	158	-27	512-BKGDS1A	387	



Area: 907.33 m² Site Area: 707 Survey Unit: 17 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
257	11/10/2010 15:24	126	158	-32	512-BKGDS1A	387	Section and the second section is a second section of the second section section is a second section of the second section sec
258	11/10/2010 15:24	96	158	-62	512-BKGDS1A	387	
259	11/10/2010 15:24	89	158	-69	512-BKGDS1A	387	
260	11/10/2010 15:24	102	158	-56	512-BKGDS1A	387	
261	11/10/2010 15:25	105	158	-53	512-BKGDS1A	387	
262	11/10/2010 15:25	110	158	-48	512-BKGDS1A	387	
263	11/10/2010 15:25	139	158	-19	512-BKGDS1A	387	
264	11/10/2010 15:25	126	158	-32	512-BKGDS1A	387	
265	11/10/2010 15:25	117	158	-41	512-BKGDS1A	387	
266	11/10/2010 15:25	118	158	-40	512-BKGDS1A	387	
267	11/10/2010 15:25	122	158	-36	512-BKGDS1A	387	
268	11/10/2010 15:25	143	158	-15	512-BKGDS1A	387	
269	11/10/2010 15:25	120	158	-38	512-BKGDS1A	387	V AND W
270	11/10/2010 15:26	146	158	-12	512-BKGDS1A	387	100
271	11/10/2010 15:26	172	158	14	512-BKGDS1A	387	
272	11/10/2010 15:26	156	158	-2	512-BKGDS1A	387	
273	11/10/2010 15:26	145	158	-13	512-BKGDS1A	387	
274	11/10/2010 15:26	143	158	-15	512-BKGDS1A	387	ella de la companya della companya d
275	11/10/2010 15:26	165	158	7	512-BKGDS1A	387	
276	11/10/2010 15:26	188	158	30	512-BKGDS1A	387	
277	11/10/2010 15:26	155	158	-3	512-BKGDS1A	387	
278	11/10/2010 15:26	125	158	-33	512-BKGDS1A	387	
279	11/10/2010 15:27	136	158	-22	512-BKGDS1A	387	
280	11/10/2010 15:27	126	158	-32	512-BKGDS1A	387	
281	11/10/2010 15:27	132	158	-26	512-BKGDS1A	387	200
282	11/10/2010 15:27	117	158	-41	512-BKGDS1A	387	
283	11/10/2010 15:27	114	158	-44	512-BKGDS1A	387	
284	11/10/2010 15:27	137	158	-21	512-BKGDS1A	387	
285	11/10/2010 15:27	153	158	-5	512-BKGDS1A	387	
286	11/10/2010 15:27	129	158	-29	512-BKGDS1A	387	
287	11/10/2010 15:28	116	158	-42	512-BKGDS1A	387	
288	11/10/2010 15:28	215	158	57	512-BKGDS1A	387	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Dda #	Data / Time	Canan	Comme	Mak	David and I		
vog #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	СРМ	10	Level (cpm)	
289	11/10/2010 15:28	162	158	4	512-BKGDS1A	387	
290	11/10/2010 15:28	142	158	-16	512-BKGDS1A	387	
291	11/10/2010 15:28	148	158	-10	512-BKGDS1A	387	
292	11/10/2010 15:28	143	158	-15	512-BKGDS1A	387	
293	11/10/2010 15:28	160	158	2	512-BKGDS1A	387	
294	11/10/2010 15:28	176	158	18	512-BKGDS1A	387	
295	11/10/2010 15:28	179	158	21	512-BKGDS1A	387	
296	11/10/2010 15:29	143	158	-15	512-BKGDS1A	387	
297	11/10/2010 15:29	125	158	-33	512-BKGDS1A	387	
298	11/10/2010 15:29	120	158	-38	512-BKGDS1A	387	
299	11/10/2010 15:29	129	158	-29	512-BKGDS1A	387	
300	11/10/2010 15:29	125	158	-33	512-BKGDS1A	387	
301	11/11/2010 7:25	57	158	-101	512-BKGDS1A	387	
302	11/11/2010 7:25	78	158	-80	512-BKGDS1A	387	
303	11/11/2010 7:25	124	158	-34	512-BKGDS1A	387	
304	11/11/2010 7:25	143	158	-15	512-BKGDS1A	387	
305	11/11/2010 7:25	150	158	-8	512-BKGDS1A	387	
306	11/11/2010 7:25	171	158	13	512-BKGDS1A	387	
307	11/11/2010 7:25	163	158	5	512-BKGDS1A	387	
308	11/11/2010 7:25	162	158	4	512-BKGDS1A	387	
309	11/11/2010 7:26	123	158	-35	512-BKGDS1A	387	
310	11/11/2010 7:26	130	158	-28	512-BKGDS1A	387	
311	11/11/2010 7:26	162	158	4	512-BKGDS1A	387	
312	11/11/2010 7:26	165	158	7	512-BKGDS1A	387	
313	11/11/2010 7:26	134	158	-24	512-BKGDS1A	387	
314	11/11/2010 7:26	143	158	-15	512-BKGDS1A	387	
315	11/11/2010 7:26	130	158	-28	512-BKGDS1A	387	
316	11/11/2010 7:26	150	158	-8	512-BKGDS1A	387	
317	11/11/2010 7:27	124	158	-34	512-BKGDS1A	387	
318	11/11/2010 7:27	124	158	-34	512-BKGDS1A	387	
319	11/11/2010 7:27	173	158	15	512-BKGDS1A	387	
320	11/11/2010 7:27	152	158	-6	512-BKGDS1A	387	



Class: 1 Area: 907.33 m² Site Area: 707 **Survey Unit: 17**

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
321	11/11/2010 7:27	162	158	4	512-BKGDS1A	387	
322	11/11/2010 7:27	145	158	-13	512-BKGDS1A	387	
323	11/11/2010 7:27	159	158	1	512-BKGDS1A	387	
324	11/11/2010 7:27	150	158	-8	512-BKGDS1A	387	
325	11/11/2010 7:27	157	158	-1	512-BKGDS1A	387	
326	11/11/2010 7:28	130	158	-28	512-BKGDS1A	387	
327	11/11/2010 7:28	122	158	-36	512-BKGDS1A	387	
328	11/11/2010 7:28	117	158	-41	512-BKGDS1A	387	
329	11/11/2010 7:28	115	158	-43	512-BKGDS1A	387	
330	11/11/2010 7:28	139	158	-19	512-BKGDS1A	387	98-109
331	11/11/2010 7:28	120	158	-38	512-BKGDS1A	387	6.1 = 32 R
332	11/11/2010 7:28	127	158	-31	512-BKGDS1A	387	
333	11/11/2010 7:28	137	158	-21	512-BKGDS1A	387	
334	11/11/2010 7:29	147	158	-11	512-BKGDS1A	387	
335	11/11/2010 7:29	131	158	-27	512-BKGDS1A	387	
336	11/11/2010 7:29	136	158	-22	512-BKGDS1A	387	The state of the s
337	11/11/2010 7:29	144	158	-14	512-BKGDS1A	387	
338	11/11/2010 7:29	126	158	-32	512-BKGDS1A	387	
339	11/11/2010 7:29	107	158	-51	512-BKGDS1A	387	
340	11/11/2010 7:29	104	158	-54	512-BKGDS1A	387	
341	11/11/2010 7:29	155	158	-3	512-BKGDS1A	387	
342	11/11/2010 7:29	156	158	-2	512-BKGDS1A	387	
343	11/11/2010 7:30	188	158	30	512-BKGDS1A	387	
344	11/11/2010 7:30	74	158	-84	512-BKGDS1A	387	
345	11/11/2010 7:30	77	158	-81	512-BKGDS1A	387	
346	11/11/2010 7:31	141	158	-17	512-BKGDS1A	387	The second secon
347	11/11/2010 7:31		158	17	512-BKGDS1A	387	
348	11/11/2010 7:31		158	4	512-BKGDS1A	387	
349	11/11/2010 7:31		158	5	512-BKGDS1A	387	
350	11/11/2010 7:31		158	37	512-BKGDS1A	387	
_							
351	11/11/2010 7:31	152	158	-6	512-BKGDS1A	387	



Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID* pa	Investigation	
	44 14 14 14 14 14 14 14 14 14 14 14 14 1	CPM	СРМ	СРМ		Level (cpm)	1
353	11/11/2010 7:31	136	158	-22	512-BKGDS1A	387	
354	11/11/2010 7:32	132	158	-26	512-BKGDS1A	387	
355	11/11/2010 7:32	116	158	-42	512-BKGDS1A	387	
356	11/11/2010 7:32	128	158	-30	512-BKGDS1A	387	
357	11/11/2010 7:32	142	158	-16	512-BKGDS1A	387	
358	11/11/2010 7:32	170	158	12	512-BKGDS1A	387	
359	11/11/2010 7:32	190	158	32	512-BKGDS1A	387	
360	11/11/2010 7:32	162	158	4	512-BKGDS1A	387	
361	11/11/2010 7:32	144	158	-14	512-BKGDS1A	387	
362	11/11/2010 7:32	155	158	-3	512-BKGDS1A	387	
363	11/11/2010 7:33	171	158	13	512-BKGDS1A	387	
364	11/11/2010 7:33	143	158	-15	512-BKGDS1A	387	
365	11/11/2010 7:33	121	158	-37	512-BKGDS1A	387	
366	11/11/2010 7:33	125	158	-33	512-BKGDS1A	387	
367	11/11/2010 7:33	124	158	-34	512-BKGDS1A	387	
368	11/11/2010 7:33	149	158	9	512-BKGDS1A	387	
369	11/11/2010 7:33	140	158	-18	512-BKGDS1A	387	200
370	11/11/2010 7:33	132	158	-26	512-BKGDS1A	387	To the expension and
371	11/11/2010 7:33	145	158	-13	512-BKGDS1A	387	
372	11/11/2010 7:34	136	158	-22	512-BKGDS1A	387	
373	11/11/2010 7:34	124	158	-34	512-BKGDS1A	387	
374	11/11/2010 7:34	132	158	-26	512-BKGDS1A	387	
375	11/11/2010 7:34	116	158	-42	512-BKGDS1A	387	
376	11/11/2010 7:34	136	158	-22	512-BKGDS1A	387	
377	11/11/2010 7:34	102	158	-56	512-BKGDS1A	387	
378	11/11/2010 7:34	87	158	-71	512-BKGDS1A	387	
379	11/11/2010 7:34	108	158	-50	512-BKGDS1A	387	
380	11/11/2010 7:35	109	158	-49	512-BKGDS1A	387	
381	11/11/2010 7:35	131	158	-27	512-BKGDS1A	387	
382	11/11/2010 7:35	158	158	0	512-BKGDS1A	387	
383	11/11/2010 7:35	141	158	-17	512-BKGDS1A	387	
		22.71.20.71.7					
384	11/11/2010 7:35	132	158	-26	512-BKGDS1A	387	



Survey Unit: 17 Area: 907.33 m² Class: 1 Site Area: 707

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
385	11/11/2010 7:35	108	158	-50	512-BKGDS1A	387	
386	11/11/2010 7:35	128	158	-30	512-BKGDS1A	387	No. 190-
387	11/11/2010 7:36	49	158	-109	512-BKGDS1A	387	
388	11/11/2010 7:36	102	158	-56	512-BKGDS1A	387	
389	11/11/2010 7:36	129	158	-29	512-BKGDS1A	387	
390	11/11/2010 7:36	174	158	16	512-BKGDS1A	387	
391	11/11/2010 7:36	156	158	-2	512-BKGDS1A	387	
392	11/11/2010 7:36	142	158	-16	512-BKGDS1A	387	
393	11/11/2010 7:37	143	158	-15	512-BKGDS1A	387	
394	11/11/2010 7:37	151	158	-7	512-BKGDS1A	387	68 BY
395	11/11/2010 7:37	130	158	-28	512-BKGDS1A	387	
396	11/11/2010 7:37	141	158	-17	512-BKGDS1A	387	
397	11/11/2010 7:37	128	158	-30	512-BKGDS1A	387	
398	11/11/2010 7:37	138	158	-20	512-BKGDS1A	387	
399	11/11/2010 7:37	148	158	-10	512-BKGDS1A	387	
400	11/11/2010 7:37	176	158	18	512-BKGDS1A	387	
401	11/11/2010 7:37	147	158	-11	512-BKGDS1A	387	
402	11/11/2010 7:38	154	158	-4	512-BKGDS1A	387	
403	11/11/2010 7:38	154	158	-4	512-BKGDS1A	387	
404	11/11/2010 7:38	169	158	11	512-BKGDS1A	387	
405	11/11/2010 7:38	176	158	18	512-BKGDS1A	387	
406	11/11/2010 7:38	170	158	12	512-BKGDS1A	387	
407	11/11/2010 7:38	150	158	-8	512-BKGDS1A	387	
408	11/11/2010 7:38	147	158	-11	512-BKGDS1A	387	
409	11/11/2010 7:38	116	158	-42	512-BKGDS1A	387	
410	11/11/2010 7:38	155	158	-3	512-BKGDS1A	387	
411	11/11/2010 7:39	156	158	-2	512-BKGDS1A	387	
412	11/11/2010 7:39	153	158	-5	512-BKGDS1A	387	
413	11/11/2010 7:39	170	158	12	512-BKGDS1A	387	
414	11/11/2010 7:39	152	158	-6	512-BKGDS1A	387	
415	11/11/2010 7:39	159	158	1	512-BKGDS1A	387	
416	11/11/2010 7:39	108	158	-50	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ	Comments
		СРМ	СРМ	CPM	יטו	Investigation Level (cpm)	
417	11/11/2010 7:39	121	158	-37	512-BKGDS1A	387	
418	11/11/2010 7:39	146	158	-12	512-BKGDS1A	387	
419	11/11/2010 7:40	174	158	16	512-BKGDS1A	387	
420	11/11/2010 7:40	163	158	5	512-BKGDS1A	387	
421	11/11/2010 7:40	141	158	-17	512-BKGDS1A	387	
422	11/11/2010 7:40	132	158	-26	512-BKGDS1A	387	
423	11/11/2010 7:40	150	158	-8	512-BKGDS1A	387	
424	11/11/2010 7:40	126	158	-32	512-BKGDS1A	387	See Difference of the Control of the
425	11/11/2010 7:40	144	158	-14	512-BKGD51A	387	
426	11/11/2010 7:40	147	158	-11	512-BKGDS1A	387	
427	11/11/2010 7:40	144	158	-14	512-BKGDS1A	387	
428	11/11/2010 7:41	142	158	-16	512-BKGDS1A	387	
429	11/11/2010 7:41	132	158	-26	512-BKGDS1A	387	
430	11/11/2010 7:41	99	158	-59	512-BKGDS1A	387	
431	11/11/2010 7:41	49	158	-109	512-BKGDS1A	387	
432	11/11/2010 7:42	64	158	-94	512-BKGDS1A	387	
433	11/11/2010 7:42	102	158	-56	512-BKGDS1A	387	
434	11/11/2010 7:42	121	158	-37	512-BKGDS1A	387	2-6-00
435	11/11/2010 7:44	54	158	-104	512-BKGDS1A	387	
436	11/11/2010 7:44	103	158	-55	512-BKGDS1A	387	
437	11/11/2010 7:44	130	158	-28	512-BKGDS1A	387	
438	11/11/2010 7:44	135	158	-23	512-BKGD51A	387	
439	11/11/2010 7:44	121	158	-37	512-BKGDS1A	387	
440	11/11/2010 7:44	162	158	4	512-BKGDS1A	387	
441	11/11/2010 7:44	140	158	-18	512-BKGDS1A	387	a second second second
442	11/11/2010 7:44	124	158	-34	512-BKGDS1A	387	
443	11/11/2010 7:44	142	158	-16	512-BKGDS1A	387	
444	11/11/2010 7:45	154	158	-4	512-BKGDS1A	387	
445	11/11/2010 7:45	130	158	-28	512-BKGDS1A	387	
446	11/11/2010 7:45	134	158	-24	512-BKGDS1A	387	
447	11/11/2010 7:45	150	158	-8	512-BKGDS1A	387	
448	11/11/2010 7:45	154	158	-4	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
449	11/11/2010 7:45	143	158	-15	512-BKGDS1A	387	
450	11/11/2010 7:45	144	158	-14	512-BKGDS1A	387	
451	11/11/2010 7:45	163	158	5	512-BKGDS1A	387	
452	11/11/2010 7:46	144	158	-14	512-BKGDS1A	387	
453	11/11/2010 7:46	125	158	-33	512-BKGDS1A	387	
454	11/11/2010 7:46	122	158	-36	512-BKGDS1A	387	
455	11/11/2010 7:46	145	158	-13	512-BKGDS1A	387	
456	11/11/2010 7:46	134	158	-24	512-BKGDS1A	387	
457	11/11/2010 7:46	120	158	-38	512-BKGDS1A	387	
458	11/11/2010 7:46	134	158	-24	512-BKGDS1A	387	13.03.2
459	11/11/2010 7:46	129	158	-29	512-BKGDS1A	387	
460	11/11/2010 7:46	106	158	-52	512-BKGDS1A	387	
461	11/11/2010 7:47	105	158	-53	512-BKGDS1A	387	
462	11/11/2010 7:47	121	158	-37	512-BKGDS1A	387	7004172 SANGE SANGE
463	11/11/2010 7:47	127	158	-31	512-BKGDS1A	387	72.41
464	11/11/2010 7:47	145	158	-13	512-BKGDS1A	387	
465	11/11/2010 7:47	108	158	-50	512-BKGDS1A	387	
466	11/11/2010 7:47	121	158	-37	512-BKGDS1A	387	
467	11/11/2010 7:47	143	158	-15	512-BKGDS1A	387	
468	11/11/2010 7:47	133	158	-25	512-BKGDS1A	387	
469	11/11/2010 7:48	127	158	-31	512-BKGDS1A	387	
470	11/11/2010 7:48	122	158	-36	512-BKGDS1A	387	_
471	11/11/2010 7:48	104	158	+54	512-BKGDS1A	387	
472	11/11/2010 7:48	114	158	-44	512-BKGDS1A	387	
473	11/11/2010 7:49	145	158	-13	512-BKGDS1A	387	
474	11/11/2010 7:49	148	158	-10	512-BKGDS1A	387	
475	11/11/2010 7:49	171	158	13	512-BKGDS1A	387	
476	11/11/2010 7:49	.158	158	0	512-BKGDS1A	387	
477	11/11/2010 7:49	153	158	-5	512-BKGDS1A	387	Territorio de la compansión de la compan
478	11/11/2010 7:49	191	158	33	512-BKGDS1A	387	
479	11/11/2010 7:50	146	158	-12	512-BKGDS1A	387	
480	11/11/2010 7:50	124	158	-34	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
481	11/11/2010 7:50	156	158	-2	512-BKGDS1A	387	
482	11/11/2010 7:50	148	158	-10	512-BKGDS1A	387	
483	11/11/2010 7:50	157	158	-1	512-BKGDS1A	387	
484	11/11/2010 7:50	140	158	-18	512-BKGDS1A	387	
485	11/11/2010 7:50	149	158	-9	512-BKGDS1A	387	
486	11/11/2010 7:50	132	158	-26	512-BKGDS1A	387	
487	11/11/2010 7:50	130	158	-28	512-BKGDS1A	387	
488	11/11/2010 7:51	116	158	-42	512-BKGDS1A	387	
489	11/11/2010 7:51	153	158	-5	512-BKGDS1A	387	
490	11/11/2010 7:51	133	158	-25	512-BKGDS1A	387	
491	11/11/2010 7:51	148	158	-10	512-BKGDS1A	387	
492	11/11/2010 7:51	150	158	-8	512-BKGDS1A	387	
493	11/11/2010 7:51	118	158	-40	512-BKGDS1A	387	
494	11/11/2010 7:51	110	158	-48	512-BKGDS1A	387	
495	11/11/2010 7:51	100	158	-58	512-BKGDS1A	387	
496	11/11/2010 7:52	91	158	-67	512-BKGDS1A	387	100 100
497	11/11/2010 7:52	94	158	-64	512-BKGDS1A	387	
498	11/11/2010 7:52	118	158	-40	512-BKGDS1A	387	
499	11/11/2010 7:52	126	158	-32	512-BKGDS1A	387	100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To 100 To
500	11/11/2010 7:52	124	158	-34	512-BKGDS1A	387	
501	11/11/2010 7:52	117	158	-41	512-BKGDS1A	387	
502	11/11/2010 7:52	175	158	17	512-BKGDS1A	387	
503	11/11/2010 7:52	152	158	-6	512-BKGDS1A	387	
504	11/11/2010 7:52	119	158	-39	512-BKGDS1A	387	,
505	11/11/2010 7:53	138	158	-20	512-BKGDS1A	387	
506	11/11/2010 7:53	144	158	-14	512-BKGDS1A	387	
507	11/11/2010 7:53	127	158	-31	512-BKGDS1A	387	
508	11/11/2010 7:53	100	158	-58	512-BKGDS1A	387	
509	11/11/2010 7:53	87	158	-71	512-BKGDS1A	387	
510	11/11/2010 7:53	138	158	-20	512-BKGDS1A	387	
511	11/11/2010 7:53	119	158	-39	512-BKGDS1A	387	
512	11/11/2010 7:53	109	158	-49	512-BKGDS1A	387	



Class: 1 Area: 907.33 m² Site Area: 707 Survey Unit: 17

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	_
513	11/11/2010 7:54	120	158	-38	512-BKGDS1A	387		ĺ
514	11/11/2010 7:54	128	158	-30	512-BKGDS1A	387		
515	11/11/2010 7:54	112	158	-46	512-BKGDS1A	387		ı
516	11/11/2010 7:54	117	158	-41	512-BKGDS1A	387		
517	11/11/2010 7:54	133	158	-25	512-BKGDS1A	387		İ
518	11/11/2010 7:55	106	158	-52	512-BKGDS1A	387		İ
519	11/11/2010 7:55	94	158	-64	512-BKGDS1A	387		ı
520	11/11/2010 7:55	92	158	-66	512-BKGDS1A	387		İ
521	11/11/2010 7:55	124	158	-34	512-BKGDS1A	387	The state of the s	İ
522	11/11/2010 7:55	130	158	-28	512-BKGDS1A	387		İ
523	11/11/2010 7:55	97	158	-61	512-BKGDS1A	387		İ
524	11/11/2010 7:55	122	158	-36	512-BKGDS1A	387		
525	11/11/2010 7:55	128	158	-30	512-BKGDS1A	387		
526	11/11/2010 7:56	118	158	-40	512-BKGDS1A	387		ĺ
527	11/11/2010 7:56	158	158	0	512-BKGDS1A	387		İ
528	11/11/2010 7:56	144	158	-14	512-BKGDS1A	387		İ
529	11/11/2010 7:56	132	158	-26	512-BKGDS1A	387		ĺ
530	11/11/2010 7:56	136	158	-22	512-BKGDS1A	387		İ
531	11/11/2010 7:56	164	158	6	512-BKGDS1A	387		ĺ
532	11/11/2010 7:56	172	158	14	512-BKGDS1A	387		İ
533	11/11/2010 7:56	126	158	-32	512-BKGDS1A	387		İ
534	11/11/2010 7:56	132	158	-26	512-BKGDS1A	387		1
535	11/11/2010 7:57	165	158	7	512-BKGDS1A	387		ĺ
536	11/11/2010 7:57	143	158	-15	512-BKGDS1A	387		ĺ
537	11/11/2010 7:57	127	158	-31	512-BKGDS1A	387		ĺ
538	11/11/2010 7:57	94	158	-64	512-BKGDS1A	387		ĺ
539	11/11/2010 7:57	109	158	-49	512-BKGDS1A	387		١
540	11/11/2010 7:57	116	158	-42	512-BKGDS1A	387		ĺ
541	11/11/2010 7:57	128	158	-30	512-BKGDS1A	387		
542	11/11/2010 7:57	162	158	4	512-BKGDS1A	387		ĺ
543	11/11/2010 7:58	173	158	15	512-BKGDS1A	387		
544	11/11/2010 7:58	154	158	-4	512-BKGDS1A	387		1



Survey Unit: 17 Site Area: 707 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
	2 77 12	Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
545	11/11/2010 7:58	145	158	-13	512-BKGDS1A	387	
546	11/11/2010 7:58	136	158	-22	512-BKGDS1A	387	
547	11/11/2010 7:58	135	158	-23	512-BKGDS1A	387	402894
548	11/11/2010 7:58	131	158	-27	512-BKGDS1A	387	
549	11/11/2010 7:58	135	158	-23	512-BKGDS1A	387	
550	11/11/2010 7:58	148	158	-10	512-BKGDS1A	387	
551	11/11/2010 7:58	137	158	-21	512-BKGDS1A	387	
552	11/11/2010 7:59	128	158	-30	512-BKGDS1A	387	
553	11/11/2010 7:59	139	158	-19	512-BKGDS1A	387	
554	11/11/2010 7:59	127	158	-31	512-BKGDS1A	387	
555	11/11/2010 7:59	114	158	-44	512-BKGDS1A	387	
556	11/11/2010 7:59	143	158	-15	512-BKGDS1A	387	
557	11/11/2010 7:59	145	158	-13	512-BKGDS1A	387	
558	11/11/2010 7:59	122	158	-36	512-BKGDS1A	387	
559	11/11/2010 8:00	126	158	-32	512-BKGDS1A	387	
560	11/11/2010 8:00	100	158	-58	512-BKGDS1A	387	
561	11/11/2010 8:00	102	158	-56	512-BKGDS1A	387	
562	11/11/2010 8:00	129	158	-29	512-BKGDS1A	387	
563	11/11/2010 8:00	118	158	-40	512-BKGDS1A	387	
564	11/11/2010 8:00	116	158	-42	512-BKGDS1A	387	0.00 M20 M2
565	11/11/2010 8:00	104	158	-54	512-BKGDS1A	387	
566	11/11/2010 8:01	146	158	-12	512-BKGDS1A	387	
567	11/11/2010 8:01	122	158	-36	512-BKGDS1A	387	
568	11/11/2010 8:01	128	158	-30	512-BKGDS1A	387	
569	11/11/2010 8:01	117	158	-41	512-BKGDS1A	387	
570	11/11/2010 8:01	119	158	-39	512-BKGDS1A	387	
571	11/11/2010 8:01	172	158	14	512-BKGDS1A	387	
572	11/11/2010 8:01	181	158	23	512-BKGDS1A	387	
573	11/11/2010 8:01	190	158	32	512-BKGDS1A	387	
574	11/11/2010 8:01	176	158	18	512-BKGDS1A	387	
575	11/11/2010 8:02	160	158	2	512-BKGDS1A	387	
576	11/11/2010 8:02	126	158	-32	512-BKGDS1A	387	



Area: 907.33 m² Survey Unit: 17 Class: 1 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
577	11/11/2010 8:02	129	158	-29	512-BKGDS1A	387	
578	11/11/2010 8:02	154	158	-4	512-BKGDS1A	387	
579	11/11/2010 8:02	123	158	-35	512-BKGDS1A	387	
580	11/11/2010 8:02	127	158	-31	512-BKGDS1A	387	
581	11/11/2010 8:02	146	158	-12	512-BKGDS1A	387	
582	11/11/2010 8:02	124	158	-34	512-BKGDS1A	387	
583	11/11/2010 8:02	133	158	-25	512-BKGDS1A	387	
584	11/11/2010 8:03	131	158	-27	512-BKGDS1A	387	
585	11/11/2010 8:03	134	158	-24	512-BKGDS1A	387	
586	11/11/2010 8:03	137	158	-21	512-BKGDS1A	387	
587	11/11/2010 8:03	110	158	-48	512-BKGDS1A	387	
588	11/11/2010 8:03	136	158	-22	512-BKGDS1A	387	
589	11/11/2010 8:03	132	158	-26	512-BKGDS1A	387	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
590	11/11/2010 8:03	143	158	-15	512-BKGDS1A	387	
591	11/11/2010 8:03	142	158	-16	512-BKGDS1A	387	
592	11/11/2010 8:04	156	158	-2	512-BKGDS1A	387	
593	11/11/2010 8:04	160	158	2	512-BKGDS1A	387	
594	11/11/2010 8:04	138	158	-20	512-BKGDS1A	387	
595	11/11/2010 8:04	127	158	-31	512-BKGDS1A	387	
596	11/11/2010 8:04	146	158	-12	512-BKGDS1A	387	
597	11/11/2010 8:04	158	158	0	512-BKGDS1A	387	
598	11/11/2010 8:04	142	158	-16	512-BKGDS1A	387	
599	11/11/2010 8:04	132	158	-26	512-BKGDS1A	387	
600	11/11/2010 8:04	133	158	-25	512-BKGDS1A	387	
601	11/11/2010 8:05	177	158	19	512-BKGDS1A	387	
602	11/11/2010 8:05	188	158	30	512-BKGDS1A	387	10.520.01
603	11/11/2010 8:05	161	158	3	512-BKGDS1A	387	10 H
604	11/11/2010 8:06		158	-49	512-BKGDS1A	387	
605	11/11/2010 8:06		158	-41	512-BKGDS1A	387	
606	11/11/2010 8:06		158	-44	512-BKGDS1A	387	
607	11/11/2010 8:06		158	-23	512-BKGDS1A	387	
608	11/11/2010 8:06		158	-26	512-BKGDS1A	387	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

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Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
609	11/11/2010 8:06	165	158	7	512-BKGDS1A	387	
610			- Canada			_	
_	11/11/2010 8:06	140	158	-18	512-BKGDS1A	387	
611	11/11/2010 8:06	108	158	-50	512-BKGDS1A	387	PH - 1 (873.78)
612	11/11/2010 8:06	111	158	-47	512-BKGDS1A	387	
613	11/11/2010 8:07	125	158	-33	512-BKGDS1A	387	
614	11/11/2010 8:07	153	158	-5	512-BKGDS1A	387	
615	11/11/2010 8:07	144	158	-14	512-BKGDS1A	387	
616	11/11/2010 8:07	148	158	-10	512-BKGDS1A	387	
617	11/11/2010 8:07	115	158	-43	512-BKGDS1A	387	
618	11/11/2010 8:07	122	158	-36	512-BKGDS1A	387	
619	11/11/2010 8:07	117	158	-41	512-BKGDS1A	387	
620	11/11/2010 8:07	122	158	-36	512-BKGDS1A	387	
621	11/11/2010 8:08	148	158	-10	512-BKGDS1A	387	
622	11/11/2010 8:08	122	158	-36	512-BKGDS1A	387	
623	11/11/2010 8:08	119	158	-39	512-BKGDS1A	387	
624	11/11/2010 8:08	134	158	-24	512-BKGDS1A	387	
625	11/11/2010 8:08	133	158	-25	512-BKGDS1A	387	73.11
626	11/11/2010 8:08	134	158	-24	512-BKGDS1A	387	1 - 1000
627	11/11/2010 8:08	150	158	-8	512-BKGDS1A	387	
628	11/11/2010 8:08	142	158	-16	512-BKGDS1A	387	
629	11/11/2010 8:08	122	158	-36	512-BKGDS1A	387	2000 - 10
630	11/11/2010 8:09	119	158	-39	512-BKGDS1A	387	
631	11/11/2010 8:09	152	158	-6	512-BKGDS1A	387	
632	11/11/2010 8:09	130	158	-28	512-BKGDS1A	387	
633	11/11/2010 8:09	127	158	-31	512-BKGDS1A	387	
634	11/11/2010 8:09	112	158	-46	512-BKGDS1A	387	
635	11/11/2010 8:09	133	158	-25	512-BKGDS1A	387	
636	11/11/2010 8:09	145	158	-13	512-BKGDS1A	387	
637	11/11/2010 8:09	117	158	-41	512-BKGDS1A	387	
638	11/11/2010 8:10	103	158	-55	512-BKGDS1A	387	
639	11/11/2010 8:10	136	158	-22	512-BKGDS1A	387	
640	11/11/2010 8:10	151	158	-7	512-BKGDS1A	387	
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TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
641	11/11/2010 8:10	167	158	9	512-BKGDS1A	387	
642	11/11/2010 8:10	158	158	0	512-BKGDS1A	387	
643	11/11/2010 8:10	139	158	-19	512-BKGDS1A	387	
6 4 4	11/11/2010 8:10	127	158	-31	512-BKGDS1A	387	
645	11/11/2010 8:12	157	158	-1	512-BKGDS1A	387	
646	11/11/2010 8:12	123	158	-35	512-BKGDS1A	387	
647	11/11/2010 8:12	124	158	-34	512-BKGD51A	387	
648	11/11/2010 8:13	121	158	-37	512-BKGDS1A	387	
649	11/11/2010 8:13	141	158	-17	512-BKGDS1A	387	
650	11/11/2010 8:13	148	158	-10	512-BKGDS1A	387	
651	11/11/2010 8:13	126	158	-32	512-BKGDS1A	387	
652	11/11/2010 8:13	149	158	-9	512-BKGDS1A	387	95 - 10 VArrAry
653	11/11/2010 8:13	171	158	13	512-BKGDS1A	387	
654	11/11/2010 8:13	170	158	12	512-BKGDS1A	387	
655	11/11/2010 8:13	148	158	-10	512-BKGDS1A	387	
656	11/11/2010 8:13	143	158	-15	512-BKGDS1A	387	100 100 100 100 100 100 100 100 100 100
657	11/11/2010 8:14	165	158	7	512-BKGDS1A	387	10.7
658	11/11/2010 8:14	167	158	9	512-BKGDS1A	387	X-1
659	11/11/2010 8:14	183	158	25	512-BKGDS1A	387	**************************************
660	11/11/2010 8:14	178	158	20	512-BKGDS1A	387	
661	11/11/2010 8:14	164	158	6	512-BKGDS1A	387	
662	11/11/2010 8:14	142	158	-16	512-BKGDS1A	387	
663	11/11/2010 8:14	137	158	-21	512-BKGDS1A	387	
664	11/11/2010 8:14	127	158	-31	512-BKGDS1A	387	
665	11/11/2010 8:15	116	158	-42	512-BKGDS1A	387	
666	11/11/2010 8:15	107	158	-51	512-BKGDS1A	387	
667	11/11/2010 8:15	118	158	-40	512-BKGDS1A	387	
668	11/11/2010 8:15	182	158	24	512-BKGDS1A	387	2 10 10 10 10 10 10 10 10 10 10 10 10 10
669	11/11/2010 8:15	199	158	41	512-BKGDS1A	387	
670	11/11/2010 8:15	142	158	-16	512-BKGDS1A	387	
671	11/11/2010 8:15	108	158	-50	512-BKGDS1A	387	
672	11/11/2010 8:15	181	158	23	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	СРМ	СРМ		Level (cpm)	
673	11/11/2010 8:15	163	158	5	512-BKGDS1A	387	1 9 2 1 1 2
674	11/11/2010 8:16	132	158	-26	512-BKGDS1A	387	
675	11/11/2010 8:16	135	158	-23	512-BKGD\$1A	387	#40.2 May 201 13.000
676	11/11/2010 8:16	118	158	-40	512-BKGDS1A	387	
677	11/11/2010 8:16	113	158	-45	512-BKGDS1A	387	
678	11/11/2010 8:16	149	158	-9	512-BKGDS1A	387	
679	11/11/2010 8:16	167	158	9	512-BKGDS1A	387	
680	11/11/2010 8:16	134	158	-24	512-BKGDS1A	387	
681	11/11/2010 8:16	160	158	2	512-BKGDS1A	387	
682	11/11/2010 8:16	166	158	8	512-BKGDS1A	387	
683	11/11/2010 8:17	146	158	-12	512-BKGDS1A	387	
684	11/11/2010 8:17	154	158	-4	512-BKGDS1A	387	
685	11/11/2010 8:17	151	158	-7	512-BKGDS1A	387	
686	11/11/2010 8:17	139	158	-19	512-BKGDS1A	387	
687	11/11/2010 8:17	168	158	10	512-BKGDS1A	387	
688	11/11/2010 8:17	165	158	7	512-BKGDS1A	387	
689	11/11/2010 8:19	105	158	-53	512-BKGD\$1A	387	
690	11/11/2010 8:19	126	158	-32	512-BKGDS1A	387	
691	11/11/2010 8:19	98	158	-60	512-BKGDS1A	387	
692	11/11/2010 8:19	155	158	-3	512-BKGDS1A	387	
693	11/11/2010 8:19	148	158	-10	512-BKGDS1A	387	
694	11/11/2010 8:19	107	158	-51	512-BKGDS1A	387	
695	11/11/2010 8:19	117	158	-41	512-BKGDS1A	387	
696	11/11/2010 8:19	127	158	-31	512-BKGDS1A	387	
697	11/11/2010 8:20	101	158	-57	512-BKGDS1A	387	
698	11/11/2010 8:20	119	158	-39	512-BKGDS1A	387	
699	11/11/2010 8:20	106	158	-52	512-BKGDS1A	387	
700	11/11/2010 8:20	116	158	-42	512-BKGDS1A	387	
701	11/11/2010 8:20	104	158	-54	512-BKGDS1A	387	
702	11/11/2010 8:20	163	158	5	512-BKGDS1A	387	
703	11/11/2010 8:20	132	158	-26	512-BKGDS1A	387	
704	11/11/2010 8:20	131	158	-27	512-BKGDS1A	387	



Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
705	11/11/2010 8:20	134	158	-24	512-BKGDS1A	387		
706	11/11/2010 8:21	158	158	0	512-BKGDS1A	387		
707	11/11/2010 8:21	137	158	-21	512-BKGDS1A	387		
708	11/11/2010 8:21	116	158	-42	512-BKGDS1A	387		
709	11/11/2010 8:21	91	158	-67	512-BKGDS1A	387		
710	11/11/2010 8:21	170	158	12	512-BKGD\$1A	387		
711	11/11/2010 8:21	169	158	11	512-BKGDS1A	387		
712	11/11/2010 8:21	128	158	-30	512-BKGDS1A	387		
713	11/11/2010 8:21	146	158	-12	512-BKGDS1A	387		
714	11/11/2010 8:21	120	158	-38	512-BKGDS1A	387		
715	11/11/2010 8:22	120	158	-38	512-BKGDS1A	387		
716	11/11/2010 8:22	127	158	-31	512-BKGDS1A	387		_
717	11/11/2010 8:22	111	158	-47	512-BKGDS1A	387		١
718	11/11/2010 8:22	92	158	-66	512-BKGDS1A	387		ĺ
719	11/11/2010 8:22	84	158	-74	512-BKGDS1A	387	Atlast	ı
720	11/11/2010 8:22	97	158	-61	512-BKGDS1A	387		İ
721	11/11/2010 8:22	88	158	-70	512-BKGDS1A	387		l
722	11/11/2010 8:22	130	158	-28	512-BKGDS1A	387		ĺ
723	11/11/2010 8:23	151	158	-7	512-BKGDS1A	387		
724	11/11/2010 8:23	131	158	-27	512-BKGDS1A	387	46,000,000	ı
725	11/11/2010 8:23	145	158	-13	512-BKGDS1A	387		
726	11/11/2010 8:23	123	158	-35	512-BKGDS1A	387		
727	11/11/2010 8:23	122	158	-36	512-BKGDS1A	387		l
728	11/11/2010 8:23	135	158	-23	512-BKGDS1A	387	1	l
729	11/11/2010 8:23	128	158	-30	512-BKGDS1A	387		
730	11/11/2010 8:23	94	158	-64	512-BKGDS1A	387		
731	11/11/2010 8:23	120	158	-38	512-BKGDS1A	387		
732	11/11/2010 8:39	162	158	4	512-BKGDS1A	387	NEWS THE STATE OF THE SECOND	
733	11/11/2010 8:39	132	158	-26	512-BKGDS1A	387		
734	11/11/2010 8:39	121	158	-37	512-BKGDS1A	387		Ì.
735	11/11/2010 8:39	131	158	-27	512-BKGDS1A	387		Ī
736	11/11/2010 8:40	143	158	-15	512-BKGDS1A	387		1



Site Area: 707 Area: 907.33 m² Survey Unit: 17 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
737	11/11/2010 8:40	119	158	-39	512-BKGDS1A	387	
738	11/11/2010 8:40	128	158	-30	512-BKGDS1A	387	
739	11/11/2010 8:40	155	158	-3	512-BKGDS1A	387	
740	11/11/2010 8:40	165	158	7	512-BKGDS1A	387	
741	11/11/2010 8:40	177	158	19	512-BKGDS1A	387	
742	11/11/2010 8:40	177	158	19	512-BKGDS1A	387	
743	11/11/2010 8:40	187	158	29	512-BKGDS1A	387	
744	11/11/2010 8:40	212	158	54	512-BKGDS1A	387	
745	11/11/2010 8:41	176	158	18	512-BKGDS1A	387	
746	11/11/2010 8:41	170	158	12	512-BKGDS1A	387	
747	11/11/2010 8:41	137	158	-21	512-BKGDS1A	387	
748	11/11/2010 8:41	148	158	-10	512-BKGDS1A	387	
749	11/11/2010 8:41	158	158	0	512-BKGDS1A	387	
750	11/11/2010 8:41	199	158	41	512-BKGDS1A	387	
751	11/11/2010 8:41	175	158	17	512-BKGDS1A	387	
752	11/11/2010 8:41	161	158	3	512-BKGDS1A	387	
753	11/11/2010 8:42	170	158	12	512-BKGD\$1A	387	
754	11/11/2010 8:42	169	158	11	512-BKGD\$1A	387	
755	11/11/2010 8:42	203	158	45	512-BKGD\$1A	387	
756	11/11/2010 8:42	154	158	-4	512-BKGDS1A	387	The state of the s
757	11/11/2010 8:42	167	158	9	512-BKGDS1A	387	
758	11/11/2010 8:42	167	158	9	512-BKGDS1A	387	
759	11/11/2010 8:42	136	158	-22	512-BKGDS1A	387	
760	11/11/2010 8:42	126	158	-32	512-BKGDS1A	387	
761	11/11/2010 8:42	121	158	-37	512-BKGDS1A	387	
762	11/11/2010 8:43	174	158	16	512-BKGDS1A	387	
763	11/11/2010 8:43	176	158	18	512-BKGDS1A	387	
764	11/11/2010 8:43	137	158	-21	512-BKGDS1A	387	
765	11/11/2010 8:43	187	158	29	512-BKGDS1A	387	
766	11/11/2010 8:43	149	158	-9	512-BKGDS1A	387	
767	11/11/2010 8:43	163	158	5	512-BKGDS1A	387	
768	11/11/2010 8:43	184	158	26	512-BKGDS1A	387	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
769	11/11/2010 8:43	168	158	10	512-BKGDS1A	387		
770	11/11/2010 8:44	209	158	51	512-BKGDS1A	387		İ
771	11/11/2010 8:44	173	158	15	512-BKGDS1A	387		İ
772	11/11/2010 8:44	180	158	22	512-BKGDS1A	387		İ
773	11/11/2010 8:44	196	158	38	512-BKGDS1A	387		İ
774	11/11/2010 8:44	171	158	13	512-BKGDS1A	387		ĺ
775	11/11/2010 8:45	184	158	26	512-BKGDS1A	387		İ
776	11/11/2010 8:45	159	158	1	512-BKGDS1A	387		
777	11/11/2010 8:45	141	158	-17	512-BKGDS1A	387		İ
778	11/11/2010 8:45	194	158	36	512-BKGDS1A	387		ĺ
779	11/11/2010 8:45	131	158	-27	512-BKGDS1A	387		Ì
780	11/11/2010 8:45	150	158	-8	512-BKGDS1A	387	203 20029 10	Ĺ
781	11/11/2010 8:45	158	158	0	512-BKGDS1A	387		Ī
82	11/11/2010 8:46	137	158	-21	512-BKGDS1A	387		ĺ
783	11/11/2010 8:46	148	158	-10	512-BKGDS1A	387		ĺ
784	11/11/2010 8:46	159	158	1	512-BKGDS1A	387		İ
785	11/11/2010 8:46	148	158	-10	512-BKGDS1A	387		Ì
786	11/11/2010 8:46	136	158	-22	512-BKGDS1A	387		Ì
787	11/11/2010 8:46	135	158	-23	512-BKGDS1A	387		ĺ
788	11/11/2010 8:46	151	158	-7	512-BKGDS1A	387		i
789	11/11/2010 8:46	161	158	3	512-BKGDS1A	387		ĺ
790	11/11/2010 8:46	209	158	51	512-BKGDS1A	387		ĺ
791	11/11/2010 8:47	166	158	8	512-BKGDS1A	387		ĺ
792	11/11/2010 8:47	174	158	16	512-BKGDS1A	387		1
793	11/11/2010 8:47	181	158	23	512-BKGDS1A	387		ĺ
794	11/11/2010 8:47	174	158	16	512-BKGDS1A	387	V. 32	١
795	11/11/2010 8:47	164	158	6	512-BKGDS1A	387	28 ((6-)	Ī
796	11/11/2010 8:47	105	158	-53	512-BKGDS1A	387		j
797	11/11/2010 8:47	101	158	-57	512-BKGDS1A	387		j
798	11/11/2010 8:47	156	158	-2	512-BKGDS1A	387		j
799	11/11/2010 8:48	141	158	-17	512-BKGDS1A	387		1
800	11/11/2010 8:48		158	-55	512-BKGDS1A	387		i



Survey Unit: 17 Area: 907.33 m² Site Area: 707 Class: 1

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
901	11/11/2010 0.40	-			E13 DVCDC1A		
801	11/11/2010 8:48	117	158	-41	512-BKGDS1A	387	
802	11/11/2010 8:48	131	158	-27	512-BKGDS1A	387	
803	11/11/2010 8:48	142	158	-16	512-BKGDS1A	387	
804	11/11/2010 8:48	116	158	-42	512-BKGDS1A	387	
805	11/11/2010 8:48	117	158	-41	512-BKGDS1A	387	
806	11/11/2010 8:48	131	158	-27	512-BKGDS1A	387	
807	11/11/2010 8:48	145	158	-13	512-BKGDS1A	387	
808	11/11/2010 8:49	146	158	-12	512-BKGDS1A	387	
809	11/11/2010 8:49	156	158	-2	512-BKGDS1A	387	
810	11/11/2010 8:49	130	158	-28	512-BKGDS1A	387	
811	11/11/2010 8:49	169	158	11	512-BKGDS1A	387	
812	11/11/2010 8:49	182	158	24	512-BKGDS1A	387	
813	11/11/2010 8:49	152	158	-6	512-BKGDS1A	387	
814	11/11/2010 8:49	188	158	30	512-BKGDS1A	387	
815	11/11/2010 8:49	143	158	-15	512-BKGDS1A	387	
816	11/11/2010 8:50	108	158	-50	512-BKGDS1A	387	
817	11/11/2010 8:50	140	158	-18	512-BKGDS1A	387	
818	11/11/2010 9:19	202	158	44	512-BKGDS1A	387	
819	11/11/2010 9:19	172	158	14	512-BKGDS1A	387	
820	11/11/2010 9:19	193	158	35	512-BKGDS1A	387	5/2/3 S. 10 NWW - II -
821	11/11/2010 9:20	189	158	31	512-BKGDS1A	387	
822	11/11/2010 9:20	209	158	51	512-BKGDS1A	387	
823	11/11/2010 9:20	199	158	41	512-BKGDS1A	387	1.00
824	11/11/2010 9:20	191	158	33	512-BKGDS1A	387	
825	11/11/2010 9:20	208	158	50	512-BKGDS1A	387	
826	11/11/2010 9:20	186	158	28	512-BKGDS1A	387	
827	11/11/2010 9:20	168	158	10	512-BKGDS1A	387	
828	11/11/2010 9:20	183	158	25	512-BKGDS1A	387	
829	11/11/2010 9:21	167	158	9	512-BKGDS1A	387	
830	11/11/2010 9:21	171	158	13	512-BKGDS1A	387	
831	11/11/2010 9:21	179	158	21	512-BKGDS1A	387	
832	11/11/2010 9:21	203	158	45	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
833	11/11/2010 9:21	214	158	56	512-BKGDS1A	387		Ī
834	11/11/2010 9:21	180	158	22	512-BKGDS1A	387		
835	11/11/2010 9:21	189	158	31	512-BKGDS1A	387		ı
836	11/11/2010 9:21	165	158	7	512-BKGDS1A	387	11 3230-24-3015 	
837	11/11/2010 9:21	157	158	-1	512-BKGDS1A	387		
838	11/11/2010 9:22	142	158	-16	512-BKGDS1A	387		
839	11/11/2010 9:22	128	158	-30	512-BKGDS1A	387		Ì
840	11/11/2010 9:22	139	158	-19	512-BKGDS1A	387		
841	11/11/2010 9:22	122	158	-36	512-BKGDS1A	387		
842	11/11/2010 9:22	128	158	-30	512-BKGDS1A	387		İ
843	11/11/2010 9:22	159	158	1	512-BKGDS1A	387		
844	11/11/2010 9:22	157	158	-1	512-BKGDS1A	387	450 000 2 2 2	
845	11/11/2010 9:22	198	158	40	512-BKGDS1A	387		
846	11/11/2010 9:23	210	158	52	512-BKGDS1A	387		İ
847	11/11/2010 9:23	153	158	-5	512-BKGDS1A	387		İ
848	11/11/2010 9:23	102	158	-56	512-BKGDS1A	387	101 101 - 102 101 111 111 111 111 111 111 111 111	İ
849	11/11/2010 9:23	139	158	-19	512-BKGDS1A	387		İ
850	11/11/2010 9:23	141	158	-17	512-BKGDS1A	387		ĺ
851	11/11/2010 9:23	149	158	-9	512-BKGDS1A	387		İ
852	11/11/2010 9:23	137	158	-21	512-BKGDS1A	387		İ
853	11/11/2010 9:23	115	158	-43	512-BKGDS1A	387		ĺ
854	11/11/2010 9:23	133	158	-25	512-BKGDS1A	387		ĺ
855	11/11/2010 9:24	164	158	6	512-BKGDS1A	387		ĺ
856	11/11/2010 9:24	153	158	-5	512-BKGDS1A	387		ĺ
857	11/11/2010 9:24	162	158	4	512-BKGDS1A	387		ĺ
858	11/11/2010 9:24	150	158	-8	512-BKGDS1A	387		ĺ
859	11/11/2010 9:24	120	158	-38	512-BKGDS1A	387		i
860	11/11/2010 9:24	156	158	-2	512-BKGDS1A	387		1
861	11/11/2010 9:25	186	158	28	512-BKGDS1A	387		i
862	11/11/2010 9:25	159	158	1	512-BKGDS1A	387		i
863	11/11/2010 9:25	169	158	11	512-BKGDS1A	387		(
864	11/11/2010 9:25	142	158	-16	512-BKGDS1A	387		ſ



TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Background CPM		Comments	3σ	Background	Net	Gamma	Gross	Date / Time	Rdø #
865 11/11/2010 9:25 158 158 0 512-BKGDS1A 387 866 11/11/2010 9:25 116 158 -42 512-BKGDS1A 387 867 11/11/2010 9:25 112 158 -46 512-BKGDS1A 387 868 11/11/2010 9:26 113 158 -45 512-BKGDS1A 387 870 11/11/2010 9:26 114 158 -44 512-BKGDS1A 387 871 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 872 11/11/2010 9:26 116 158 -48 512-BKGDS1A 387 873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 877 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A		Comments						Date / Time	IIOB II
866 11/11/2010 9:25 116 158 -42 512-BKGDS1A 387 867 11/11/2010 9:25 112 158 -46 512-BKGDS1A 387 868 11/11/2010 9:26 113 158 -45 512-BKGDS1A 387 869 11/11/2010 9:26 117 158 -41 512-BKGDS1A 387 870 11/11/2010 9:26 114 158 -44 512-BKGDS1A 387 871 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 872 11/11/2010 9:26 116 158 -42 512-BKGDS1A 387 873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 877 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A			Level (cpm)		СРМ	СРМ	CPM		
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869 11/11/2010 9:26 117 158 -41 512-BKGDS1A 387 870 11/11/2010 9:26 114 158 -44 512-BKGDS1A 387 871 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 872 11/11/2010 9:26 116 158 -42 512-BKGDS1A 387 873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 877 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 878 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 879 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 879 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 880 11/11/2010 9:27 121 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -42 512-BKGDS1A 387 884 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 885 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -46 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -46 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -46 512-BKGDS1A 387 889 11/11/2010 9:28 113 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 113 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 113 158 -8 512-BKGDS1A 387			387	512-BKGDS1A	-46	158	112	11/11/2010 9:25	867
870 11/11/2010 9:26 114 158 -44 512-BKGDS1A 387 871 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 872 11/11/2010 9:26 116 158 -42 512-BKGDS1A 387 873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 879 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 121 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -36 512-BKGDS1A 387 882 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -42 512-BKGDS1A 387 884 11/11/2010 9:27 104 158 -45 512-BKGDS1A 387 885 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -49 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -40 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-45	158	113	11/11/2010 9:26	868
871 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 872 11/11/2010 9:26 116 158 -42 512-BKGDS1A 387 873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -36 512-BKGDS1A 387 882 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 104 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 884 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 889 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 889 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-41	158	117	11/11/2010 9:26	869
872 11/11/2010 9:26 116 158 -42 512-8KGDS1A 387 873 11/11/2010 9:26 158 158 0 512-8KGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-8KGDS1A 387 875 11/11/2010 9:27 148 158 -10 512-8KGDS1A 387 876 11/11/2010 9:27 160 158 2 512-8KGDS1A 387 877 11/11/2010 9:27 131 158 -27 512-8KGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-8KGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-8KGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-8KGDS1A 387 882 11/11/2010 9:27 104 158 -42 512-8KGDS1A 387 883 11/11/2010 9:27 109 158 -49 512-8KGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-8KGDS1A	71		387	512-BKGDS1A	-44	158	114	11/11/2010 9:26	870
873 11/11/2010 9:26 158 158 0 512-BKGDS1A 387 874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 121 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -42 512-BKGDS1A 387 884 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 885 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387			387	512-BKGDS1A	-48	158	110	11/11/2010 9:26	871
874 11/11/2010 9:26 126 158 -32 512-BKGDS1A 387 875 11/11/2010 9:27 148 158 -48 512-BKGDS1A 387 876 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387	15 1000 100 100 100 100 100 100 100 100 10		387	512-BKGDS1A	-42	158	116	11/11/2010 9:26	872
875 11/11/2010 9:26 110 158 -48 512-BKGDS1A 387 876 11/11/2010 9:27 148 158 -10 512-BKGDS1A 387 877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 121 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -42 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 888 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	0	158	158	11/11/2010 9:26	873
876			387	512-BKGDS1A	-32	158	126	11/11/2010 9:26	874
877 11/11/2010 9:27 160 158 2 512-BKGDS1A 387 878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 887 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 888 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387	V P		387	512-BKGDS1A	-48	158	110	11/11/2010 9:26	875
878 11/11/2010 9:27 131 158 -27 512-BKGDS1A 387 879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-10	158	148	11/11/2010 9:27	876
879 11/11/2010 9:27 134 158 -24 512-BKGDS1A 387 880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 130 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	2	158	160	11/11/2010 9:27	877
880 11/11/2010 9:27 122 158 -36 512-BKGDS1A 387 881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387			387	512-BKGDS1A	-27	158	131	11/11/2010 9:27	878
881 11/11/2010 9:27 121 158 -37 512-BKGDS1A 387 882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-24	158	134	11/11/2010 9:27	879
882 11/11/2010 9:27 116 158 -42 512-BKGDS1A 387 883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-36	158	122	11/11/2010 9:27	880
883 11/11/2010 9:27 104 158 -54 512-BKGDS1A 387 884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-37	158	121	11/11/2010 9:27	881
884 11/11/2010 9:27 109 158 -49 512-BKGDS1A 387 885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387		2)=	387	512-BKGDS1A	-42	158	116	11/11/2010 9:27	882
885 11/11/2010 9:28 113 158 -45 512-BKGDS1A 387 886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-54	158	104	11/11/2010 9:27	883
886 11/11/2010 9:28 118 158 -40 512-BKGDS1A 387 887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-49	158	109	11/11/2010 9:27	884
887 11/11/2010 9:28 132 158 -26 512-BKGDS1A 387 888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-45	158	113	11/11/2010 9:28	885
888 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387 889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-40	158	118	11/11/2010 9:28	886
889 11/11/2010 9:28 177 158 19 512-BKGDS1A 387			387	512-BKGDS1A	-26	158	132	11/11/2010 9:28	887
			387	512-BKGDS1A	-8	158	150	11/11/2010 9:28	888
890 11/11/2010 9:28 171 158 13 512-BKGDS1A 387	AN CAN DESIGNATION		387	512-BKGDS1A	19	158	177	11/11/2010 9:28	889
			387	512-BKGDS1A	13	158	171	11/11/2010 9:28	890
891 11/11/2010 9:28 135 158 -23 512-BKGDS1A 387			387	512-BKGDS1A	-23	158	135	11/11/2010 9:28	891
892 11/11/2010 9:28 150 158 -8 512-BKGDS1A 387			387	512-BKGDS1A	-8	158	150	11/11/2010 9:28	892
893 11/11/2010 9:28 173 158 15 512-BKGDS1A 387			387	512-BKGDS1A	15	158	173	11/11/2010 9:28	893
894 11/11/2010 9:29 121 158 -37 512-BKGDS1A 387			387	512-BKGDS1A	-37	158	121	11/11/2010 9:29	894
895 11/11/2010 9:29 136 158 -22 512-BKGDS1A 387			387	512-BKGDS1A	-22	158	136	11/11/2010 9:29	895
896 11/11/2010 9:29 114 158 -44 512-BKGDS1A 387			387	512-BKGDS1A	-44	158	114	11/11/2010 9:29	896



Area: 907.33 m² Survey Unit: 17 Class: 1 Site Area: 707

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
897	11/11/2010 9:29	88	158	-70	512-BKGDS1A	387	
898	11/11/2010 9:29	144	158	-14	512-BKGDS1A	387	
899	11/11/2010 9:29	142	158	-16	512-BKGDS1A	387	
900	11/11/2010 9:29	146	158	-12	512-BKGDS1A	387	
901	11/11/2010 9:29	144	158	-14	512-BKGDS1A	387	
902	11/11/2010 9:30	154	158	-4	512-BKGDS1A	387	
903	11/11/2010 9:30	122	158	-36	512-BKGDS1A	387	
904	11/11/2010 9:30	124	158	-34	512-BKGDS1A	387	
905	11/11/2010 9:30	126	158	-32	512-BKGDS1A	387	
906	11/11/2010 9:31	111	158	-47	512-BKGDS1A	387	
907	11/11/2010 9:31	153	158	-5	512-BKGDS1A	387	
908	11/11/2010 9:31	185	158	27	512-BKGDS1A	387	3100 - 3100
909	11/11/2010 9:31	166	158	8	512-BKGDS1A	387	
910	11/11/2010 9:31	189	158	31	512-BKGDS1A	387	La Carasa
911	11/11/2010 9:31	139	158	-19	512-BKGDS1A	387	
912	11/11/2010 9:31	188	158	30	512-BKGDS1A	387	
913	11/11/2010 9:31	185	158	27	512-BKGDS1A	387	
914	11/11/2010 9:31	167	158	9	512-BKGDS1A	387	
915	11/11/2010 9:32	163	158	5	512-BKGDS1A	387	1000
916	11/11/2010 9:32	166	158	8	512-BKGDS1A	387	
917	11/11/2010 9:32	161	158	3	512-BKGDS1A	387	
918	11/11/2010 9:32	145	158	-13	512-BKGDS1A	387	
919	11/11/2010 9:32	160	158	2	512-BKGDS1A	387	
920	11/11/2010 9:32	126	158	-32	512-BKGDS1A	387	
921	11/11/2010 9:32	118	158	-40	512-BKGDS1A	387	
922	11/11/2010 9:32	162	158	4	512-BKGDS1A	387	
923	11/11/2010 9:33	143	158	-15	512-BKGDS1A	387	
924	11/11/2010 9:33	150	158	-8	512-BKGDS1A	387	
925	11/11/2010 9:33	118	158	-40	512-BKGDS1A	387	
926	11/11/2010 9:33	122	158	-36	512-BKGDS1A	387	La Carta de la Car
927	11/11/2010 9:33	171	158	13	512-BKGDS1A	387	
928	11/11/2010 9:33		158	-18	512-BKGDS1A	387	



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

		Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	СРМ	CPM		Level (cpm)	
929	11/11/2010 9:33	120	158	-38	512-BKGDS1A	387	
930	11/11/2010 9:33	120	158	-38	512-BKGDS1A	387	
931	11/11/2010 9:33	136	158	-22	512-BKGDS1A	387	
932	11/11/2010 9:34	128	158	-30	512-BKGDS1A	387	
933	11/11/2010 9:34	115	158	-43	512-BKGDS1A	387	
934	11/11/2010 9:34	136	158	-22	512-BKGDS1A	387	
935	11/11/2010 9:34	167	158	9	512-BKGDS1A	387	
936	11/11/2010 9:34	145	158	-13	512-BKGDS1A	387	
937	11/11/2010 9:34	116	158	-42	512-BKGDS1A	387	
938	11/11/2010 9:34	117	158	-41	512-BKGDS1A	387	
939	11/11/2010 9:34	111	158	-47	512-BKGDS1A	387	
940	11/11/2010 9:34	114	158	-44	512-BKGDS1A	387	
941	11/11/2010 9:35	134	158	-24	512-BKGDS1A	387	
942	11/11/2010 9:35	132	158	-26	512-BKGDS1A	387	
943	11/11/2010 9:35	139	158	-19	512-BKGDS1A	387	
944	11/11/2010 9:35	147	158	-11	512-BKGDS1A	387	
945	11/11/2010 9:35	123	158	-35	512-BKGDS1A	387	32
946	11/11/2010 9:35	116	158	-42	512-BKGDS1A	387	
947	11/11/2010 9:36	159	158	1	512-BKGDS1A	387	
948	11/11/2010 9:36	123	158	-35	512-BKGDS1A	387	
949	11/11/2010 9:36	122	158	-36	512-BKGDS1A	387	
950	11/11/2010 9:36	145	158	-13	512-BKGDS1A	387	
951	11/11/2010 9:37	98	158	-60	512-BKGDS1A	387	
952	11/11/2010 9:37	106	158	-52	512-BKGDS1A	387	
953	11/11/2010 9:37	123	158	-35	512-BKGDS1A	387	
954	11/11/2010 9:37	161	158	3	512-BKGDS1A	387	
955	11/11/2010 9:37	120	158	-38	512-BKGDS1A	387	
956	11/11/2010 9:37	147	158	-11	512-BKGDS1A	387	
957	11/11/2010 9:37	175	158	17	512-BKGDS1A	387	
958	11/11/2010 9:37	141	158	-17	512-BKGDS1A	387	
959	11/11/2010 9:37	139	158	-19	512-BKGDS1A	387	
960	11/11/2010 9:38	140	158	-18	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
961	11/11/2010 9:38	143	158	-15	512-BKGDS1A	387		
962	11/11/2010 9:38	103	158	-55	512-BKGDS1A	387		
963	11/11/2010 9:38	142	158	-16	512-BKGDS1A	387		
964	11/11/2010 9:38	138	158	-20	512-BKGDS1A	387		
965	11/11/2010 9:38	144	158	-14	512-BKGDS1A	387		
966	11/11/2010 9:38	145	158	-13	512-BKGDS1A	387		
967	11/11/2010 9:38	126	158	-32	512-BKGDS1A	387		
968	11/11/2010 9:39	129	158	-29	512-BKGDS1A	387		
969	11/11/2010 9:39	129	158	-29	512-BKGDS1A	387		
970	11/11/2010 9:39	85	158	-73	512-BKGDS1A	387	100 m	
971	11/11/2010 9:39	111	158	-47	512-BKGDS1A	387		
972	11/11/2010 9:39	117	158	-41	512-BKGDS1A	387		L
973	11/11/2010 9:39	128	158	-30	512-BKGDS1A	387		N
974	11/11/2010 9:39	154	158	-4	512-BKGDS1A	387		
975	11/11/2010 9:39	145	158	-13	512-BKGDS1A	387		
976	11/11/2010 9:39	147	158	-11	512-BKGDS1A	387		I
977	11/11/2010 9:40	116	158	-42	512-BKGDS1A	387		
978	11/11/2010 9:40	107	158	-51	512-BKGDS1A	387		
979	11/11/2010 9:40	116	158	-42	512-BKGDS1A	387		
980	11/11/2010 9:40	103	158	-55	512-BKGDS1A	387]
981	11/11/2010 9:40	145	158	-13	512-BKGDS1A	387		
982	11/11/2010 9:40	147	158	-11	512-BKGDS1A	387		
983	11/11/2010 9:40	137	158	-21	512-BKGDS1A	387		
984	11/11/2010 9:40	124	158	-34	512-BKGDS1A	387		
985	11/11/2010 9:41	113	158	-45	512-BKGDS1A	387		
986	11/11/2010 9:41	101	158	-57	512-BKGDS1A	387	R = -4.0	
987	11/11/2010 9:41	113	158	-45	512-BKGDS1A	387		
988	11/11/2010 9:41	130	158	-28	512-BKGDS1A	387		
989	11/11/2010 9:41	118	158	-40	512-BKGDS1A	387		
990	11/11/2010 9:41	148	158	-10	512-BKGDS1A	387		1
991	11/11/2010 9:42	124	158	-34	512-BKGDS1A	387]
992	11/11/2010 9:42	114	158	-44	512-BKGDS1A	387		1



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
993	11/11/2010 9:42	105	158	-53	512-BKGDS1A	387	
994	11/11/2010 9:42	106	158	-52	512-BKGDS1A	387	
995	11/11/2010 9:42	120	158	-38	512-BKGDS1A	387	
996	11/11/2010 9:42	143	158	-15	512-BKGDS1A	387	
997	11/11/2010 9:42	116	158	-42	512-BKGDS1A	387	
998	11/11/2010 9:42	115	158	-43	512-BKGDS1A	387	
999	11/11/2010 9:42	146	158	-12	512-BKGDS1A	387	
1000	11/11/2010 9:43	167	158	9	512-BKGDS1A	387	
1001	11/11/2010 9:43	112	158	-46	512-BKGDS1A	387	
1002	11/11/2010 9:43	100	158	-58	512-BKGDS1A	387	
1003	11/11/2010 9:43	153	158	-5	512-BKGDS1A	387	
1004	11/11/2010 9:43	157	158	-1	512-BKGDS1A	387	
1005	11/11/2010 9:43	129	158	-29	512-BKGDS1A	387	
1006	11/11/2010 9:43	102	158	-56	512-BKGDS1A	387	
1007	11/11/2010 9:43	129	158	-29	512-BKGDS1A	387	
1008	11/11/2010 9:44	96	158	-62	512-BKGDS1A	387	
1009	11/11/2010 9:44	126	158	-32	512-BKGDS1A	387	
1010	11/11/2010 9:44	133	158	-25	512-BKGDS1A	387	900
1011	11/11/2010 9:44	181	158	23	512-BKGDS1A	387	
1012	11/11/2010 9:44	134	158	-24	512-BKGDS1A	387	
1013	11/11/2010 9:44	141	158	-17	512-BKGDS1A	387	700
1014	11/11/2010 9:44	173	158	15	512-BKGDS1A	387	
1015	11/11/2010 9:44	149	158	-9	512-BKGDS1A	387	
1016	11/11/2010 9:44	133	158	-25	512-BKGDS1A	387	
1017	11/11/2010 9:45	148	158	-10	512-BKGDS1A	387	
1018	11/11/2010 9:45	117	158	-41	512-BKGDS1A	387	
1019	11/11/2010 9:45	108	158	-50	512-BKGDS1A	387	
1020	11/11/2010 9:45	134	158	-24	512-BKGDS1A	387	
1021	11/11/2010 9:45	167	158	9	512-BKGD\$1A	387	
1022	11/11/2010 9:45	135	158	-23	512-BKGDS1A	387	
1023	11/11/2010 9:45	106	158	-52	512-BKGDS1A	387	
1024	11/11/2010 9:45	124	158	-34	512-BKGDS1A	387	



Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

Kag #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1025	11/11/2010 9:46	124	158	-34	512-BKGDS1A	387	
1026	11/11/2010 9:46	101	158	-57	512-BKGDS1A	387	
1027	11/11/2010 9:46	113	158	-45	512-BKGDS1A	387	
1028	11/11/2010 9:46	159	158	1	512-BKGDS1A	387	
1029	11/11/2010 9:46	150	158	-8	512-BKGDS1A	387	
1030	11/11/2010 9:46	164	158	6	512-BKGDS1A	387	
1031	11/11/2010 9:46	160	158	2	512-BKGDS1A	387	
1032	11/11/2010 9:46	172	158	14	512-BKGDS1A	387	
1033	11/11/2010 9:48	147	158	-11	512-BKGDS1A	387	
1034	11/11/2010 9:49	60	158	-98	512-BKGDS1A	387	
1035	11/11/2010 9:49	51	158	-107	512-BKGDS1A	387	Section 1
1036	11/11/2010 9:49	97	158	-61	512-BKGDS1A	387	XX. 1984 — 19 40 10 10 10
1037	11/11/2010 9:49	116	158	-42	512-BKGDS1A	387	
1038	11/11/2010 9:49	104	158	-54	512-BKGDS1A	387	
1039	11/11/2010 9:49	174	158	16	512-BKGDS1A	387	
1040	11/11/2010 9:50	144	158	-14	512-BKGDS1A	387	
1041	11/11/2010 9:50	155	158	-3	512-BKGDS1A	387	
1042	11/11/2010 9:50	152	158	-6	512-BKGDS1A	387	
1043	11/11/2010 9:50	122	158	-36	512-BKGDS1A	387	
1044	11/11/2010 9:50	134	158	-24	512-BKGDS1A	387	
1045	11/11/2010 9:50	150	158	-8	512-BKGDS1A	387	
1046	11/11/2010 9:50	203	158	45	512-BKGDS1A	387	
1047	11/11/2010 9:50	147	158	-11	512-BKGDS1A	387	
1048	11/11/2010 9:50	120	158	-38	512-BKGDS1A	387	
1049	11/11/2010 9:51	125	158	-33	512-BKGDS1A	387	
1050	11/11/2010 9:51		158	-22	512-BKGDS1A	387	
1051	11/11/2010 9:51	-	158	-27	512-BKGDS1A	387	
1052	11/11/2010 9:51		158	-37	512-BKGDS1A	387	
1053	11/11/2010 9:51		158	-71	512-BKGDS1A	387	
1054	11/11/2010 9:51		158	-61	512-BKGDS1A	387	
1055	11/11/2010 9:51		158	-55	512-BKGD\$1A	387	
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TETRATECH ECLINC: Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID*	Investigation	
		СРМ	СРМ	CPM		Level (cpm)	
1057	11/11/2010 9:52	125	158	-33	512-BKGDS1A	387	
1058	11/11/2010 9:52	127	158	-31	512-BKGDS1A	387	
1059	11/11/2010 9:52	168	158	10	512-BKGDS1A	387	
1060	11/11/2010 9:52	155	158	-3	512-BKGDS1A	387	
1061	11/11/2010 9:52	175	158	17	512-BKGDS1A	387	
1062	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1063	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1064	11/11/2010 9:52	146	158	-12	512-BKGDS1A	387	
1065	11/11/2010 9:52	125	158	-33	512-BKGDS1A	387	
1066	11/11/2010 9:53	131	158	-27	512-BKGDS1A	387	
1067	11/11/2010 9:53	134	158	-24	512-BKGDS1A	387	
1068	11/11/2010 9:53	159	158	1	512-BKGDS1A	387	
1069	11/11/2010 9:53	150	158	-8	512-BKGD\$1A	387	
1070	11/11/2010 9:53	157	158	-1	512-BKGDS1A	387	
1071	11/11/2010 9:53	135	158	-23	512-BKGDS1A	387	
1072	11/11/2010 9:53	112	158	-46	512-BKGDS1A	387	
1073	11/11/2010 9:53	128	158	-30	512-BKGDS1A	387	
1074	11/11/2010 9:53	143	158	-15	512-BKGDS1A	387	
1075	11/11/2010 9:54	127	158	-31	512-BKGDS1A	387	
1076	11/11/2010 9:55	125	158	-33	512-BKGDS1A	387	
1077	11/11/2010 9:55	130	158	-28	512-BKGDS1A	387	The same of the sa
1078	11/11/2010 9:55	170	158	12	512-BKGDS1A	387	
1079	11/11/2010 9:55	172	158	14	512-BKGDS1A	387	
1080	11/11/2010 9:55	130	158	-28	512-BKGDS1A	387	
1081	11/11/2010 9:55	134	158	-24	512-BKGDS1A	387	
1082	11/11/2010 9:56	150	158	-8	512-BKGDS1A	387	
1083	11/11/2010 9:56	159	158	1	512-BKGDS1A	387	
1084	11/11/2010 9:56	135	158	-23	512-BKGDS1A	387	
1085	11/11/2010 9:56	122	158	-36	512-BKGDS1A	387	
1086	11/11/2010 9:56	154	158	-4	512-BKGDS1A	387	
1087	11/11/2010 9:56	121	158	-37	512-BKGDS1A	387	
1088	11/11/2010 9:56	156	158	-2	512-BKGDS1A	387	
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Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	СРМ	СРМ		Level (cpm)	
1089	11/11/2010 9:56	165	158	7	512-BKGDS1A	387	
1090	11/11/2010 9:56	147	158	-11	512-BKGDS1A	387	
1091	11/11/2010 9:57	112	158	-46	512-BKGDS1A	387	
1092	11/11/2010 9:57	105	158	-53	512-BKGDS1A	387	
1093	11/11/2010 9:57	107	158	-51	512-BKGDS1A	387	
1094	11/11/2010 9:57	110	158	-48	512-BKGDS1A	387	
1095	11/11/2010 9:57	124	158	-34	512-BKGDS1A	387	1
1096	11/11/2010 9:57	170	158	12	512-BKGDS1A	387	
1097	11/11/2010 9:57	136	158	-22	512-BKGDS1A	387	
1098	11/11/2010 9:57	149	158	-9	512-BKGDS1A	387	
1099	11/11/2010 9:57	137	158	-21	512-BKGDS1A	387	
1100	11/11/2010 9:58	125	158	-33	512-BKGDS1A	387	
1101	11/11/2010 9:58	176	158	18	512-BKGDS1A	387	
1102	11/11/2010 9:58	111	158	-47	512-BKGDS1A	387	
1103	11/11/2010 9:58	93	158	-65	512-BKGDS1A	387	
1104	11/11/2010 9:58	120	158	-38	512-BKGDS1A	387	
1105	11/11/2010 9:58	155	158	-3	512-BKGDS1A	387	
1106	11/11/2010 9:58	133	158	-25	512-BKGDS1A	387	
1107	11/11/2010 9:58	126	158	-32	512-BKGDS1A	387	
1108	11/11/2010 9:59	112	158	-46	512-BKGDS1A	387	
1109	11/11/2010 9:59	117	158	-41	512-BKGDS1A	387	
1110	11/11/2010 9:59	107	158	-51	512-BKGDS1A	387	
1111	11/11/2010 9:59	122	158	-36	512-BKGDS1A	387	
1112	11/11/2010 9:59	106	158	-52	512-BKGDS1A	387	
	11/11/2010 9:59	108	158	-50	512-BKGDS1A	387	
1113				-48	512-BKGDS1A	387	
1114	11/11/2010 9:59	110	158			1	
1115	11/11/2010 9:59	121	158	-37	512-BKGDS1A	387	
1116	11/11/2010 9:59		158	-17	512-BKGDS1A	387	
1117	11/11/2010 10:0	-	158	A 1822A	512-BKGDS1A	387	
1118	11/11/2010 10:0		158	-28	512-BKGDS1A	387	
1119	11/11/2010 10:0	1 113	158	-45	512-BKGDS1A	387	
1120	11/11/2010 10:0	1 112	158	-46	512-BKGDS1A	387	



Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

nug #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1121	11/11/2010 10:01	157	158	-1	512-BKGDS1A	387	
1122	11/11/2010 10:01	150	158	-8	512-BKGDS1A	387	
1123	11/11/2010 10:01	134	158	-24	512-BKGDS1A	387	
1124	11/11/2010 10:02	128	158	-30	512-BKGDS1A	387	
1125	11/11/2010 10:02	145	158	-13	512-BKGDS1A	387	
1126	11/11/2010 10:02	119	158	-39	512-BKGDS1A	387	
1127	11/11/2010 10:02	144	158	-14	512-BKGDS1A	387	
1128	11/11/2010 10:02	124	158	-34	512-BKGDS1A	387	A CONTRACTOR OF THE CONTRACTOR
1129	11/11/2010 10:02	156	158	-2	512-BKGDS1A	387	
1130	11/11/2010 10:02	156	158	-2	512-BKGDS1A	387	
1131	11/11/2010 10:02	139	158	-19	512-BKGDS1A	387	
1132	11/11/2010 10:02	176	158	18	512-BKGDS1A	387	
1133	11/11/2010 10:03	128	158	-30	512-BKGDS1A	387	
1134	11/11/2010 10:03	170	158	12	512-BKGDS1A	387	
1135	11/11/2010 10:03	150	158	-8	512-BKGDS1A	387	
1136	11/11/2010 10:03	148	158	-10	512-BKGDS1A	387	
1137	11/11/2010 10:03	129	158	-29	512-BKGDS1A	387	
1138	11/11/2010 10:03	142	158	-16	512-BKGDS1A	387	
1139	11/11/2010 10:03	153	158	-5	512-BKGDS1A	387	
1140	11/11/2010 10:03	222	158	64	512-BKGDS1A	387	
1141	11/11/2010 10:03	189	158	31	512-BKGDS1A	387	
1142	11/11/2010 10:04	185	158	27	512-BKGDS1A	387	
1143	11/11/2010 10:04	143	158	-15	512-BKGDS1A	387	
1144	11/11/2010 10:04	130	158	-28	512-BKGDS1A	387	
1145	11/11/2010 10:04	104	158	-54	512-BKGDS1A	387	
1146	11/11/2010 10:04	118	158	-40	512-BKGDS1A	387	
1147	11/11/2010 10:04	118	158	-40	512-BKGDS1A	387	
1148	11/11/2010 10:04	99	158	-59	512-BKGDS1A	387	
1149	11/11/2010 10:04	111	158	-47	512-BKGDS1A	387	
1150	11/11/2010 10:05	137	158	-21	512-BKGDS1A	387	
1151	11/11/2010 10:05	163	158	5	512-BKGDS1A	387	
1152	11/11/2010 10:05	142	158	-16	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1153	11/11/2010 10:05	142	158	-16	512-BKGDS1A	387		Ī
1154	11/11/2010 10:05	155	158	-3	512-BKGDS1A	387		i
1155	11/11/2010 10:05	124	158	-34	512-BKGDS1A	387		ĺ
1156	11/11/2010 10:05	97	158	-61	512-BKGDS1A	387		ĺ
1157	11/11/2010 10:05	102	158	-56	512-BKGDS1A	387		ĺ
1158	11/11/2010 10:05	111	158	-47	512-BKGDS1A	387		ĺ
1159	11/11/2010 10:06	98	158	-60	512-BKGDS1A	387		ĺ
1160	11/11/2010 10:06	105	158	-53	512-BKGDS1A	387		ĺ
1161	11/11/2010 10:06	128	158	-30	512-BKGDS1A	387		Ī
1162	11/11/2010 10:19	195	158	37	512-BKGDS1A	387		1
1163	11/11/2010 10:19	163	158	5	512-BKGDS1A	387		ĺ
1164	11/11/2010 10:19	169	158	11	512-BKGDS1A	387	\$1000	1.
1165	11/11/2010 10:19	129	158	-29	512-BKGDS1A	387		ĺ
1166	11/11/2010 10:19	169	158	11	512-BKGDS1A	387		i
1167	11/11/2010 10:19	163	158	5	512-BKGDS1A	387		î
1168	11/11/2010 10:19	131	158	-27	512-BKGDS1A	387		1
1169	11/11/2010 10:20	126	158	-32	512-BKGDS1A	387		i
1170	11/11/2010 10:20	124	158	-34	512-BKGDS1A	387		1
1171	11/11/2010 10:20	113	158	-45	512-BKGDS1A	387		1
1172	11/11/2010 10:20	178	158	20	512-BKGDS1A	387	1 (M 1 (M	1
1173	11/11/2010 10:20	126	158	-32	512-BKGDS1A	387		1
1174	11/11/2010 10:20	123	158	-35	512-BKGDS1A	387		1
1175	11/11/2010 10:20	150	158	-8	512-BKGDS1A	387		1
1176	11/11/2010 10:20	160	158	2	512-BKGDS1A	387		1
1177	11/11/2010 10:21	164	158	6	512-BKGDS1A	387		1
1178	11/11/2010 10:21		158	28	512-BKGDS1A	387		1
1179	11/11/2010 10:21	_	158	26	512-BKGDS1A	387		1
1180	11/11/2010 10:21		158	18	512-BKGDS1A	387	\$20000 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	i
1181	11/11/2010 10:21		158	-28	512-BKGDS1A	387		1
1182	11/11/2010 10:21		158	-53	512-BKGDS1A	387		1
1183	11/11/2010 10:21		158	-48	512-BKGDS1A	387		1
1184	11/11/2010 10:21		158	-40	512-BKGDS1A	387		í



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Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID*	Investigation	
		СРМ	СРМ	CPM		Level (cpm)	
1185	11/11/2010 10:21	121	158	-37	512-BKGDS1A	387	
1186	11/11/2010 10:22	113	158	-45	512-BKGDS1A	387	
1187	11/11/2010 10:22	143	158	-15	512-BKGDS1A	387	
1188	11/11/2010 10:22	139	158	-19	512-BKGDS1A	387	
1189	11/11/2010 10:22	149	158	-9	512-BKGDS1A	387	
1190	11/11/2010 10:22	123	158	-35	512-BKGDS1A	387	
1191	11/11/2010 10:22	136	158	-22	512-BKGDS1A	387	
1192	11/11/2010 10:22	86	158	-72	512-BKGDS1A	387	
1193	11/11/2010 10:22	116	158	-42	512-BKGDS1A	387	
1194	11/11/2010 10:22	132	158	-26	512-BKGDS1A	387	
1195	11/11/2010 10:23	118	158	-40	512-BKGDS1A	387	
1196	11/11/2010 10:23	140	158	-18	512-BKGDS1A	387	
1197	11/11/2010 10:23	145	158	-13	512-BKGDS1A	387	
1198	11/11/2010 10:23	135	158	-23	512-BKGDS1A	387	18
1199	11/11/2010 10:23	158	158	0	512-BKGDS1A	387	
1200	11/11/2010 10:23	143	158	-15	512-BKGDS1A	387	
1201	11/11/2010 10:23	124	158	-34	512-BKGDS1A	387	
1202	11/11/2010 10:23	86	158	-72	512-BKGDS1A	387	
1203	11/11/2010 10:24	120	158	-38	512-BKGDS1A	387	
1204	11/11/2010 10:24	135	158	-23	512-BKGDS1A	387	10 JOH 8011 K
1205	11/11/2010 10:25	131	158	-27	512-BKGDS1A	387	
1206	11/11/2010 10:25	97	158	-61	512-BKGDS1A	387	
1207	11/11/2010 10:25	84	158	-74	512-BKGDS1A	387	
1208	11/11/2010 10:26	83	158	-75	512-BKGDS1A	387	
1209	11/11/2010 10:26	122	158	-36	512-BKGDS1A	387	
1210	11/11/2010 10:26	119	158	-39	512-BKGDS1A	387	
1211	11/11/2010 10:26	151	158	-7	512-BKGDS1A	387	
1212	11/11/2010 10:26	171	158	13	512-BKGDS1A	387	
1213	11/11/2010 10:26	129	158	-29	512-BKGDS1A	387	
1214	11/11/2010 10:26	128	158	-30	512-BKGDS1A	387	
1215	11/11/2010 10:26	145	158	-13	512-BKGDS1A	387	
1216	11/11/2010 10:27	113	158	-45	512-BKGDS1A	387	
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Area: 907.33 m² Survey Unit: 17 Class: 1 Site Area: 707

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
1217	11/11/2010 10:27	114	158	-44	512-BKGDS1A	387	
1218	11/11/2010 10:27	119	158	-39	512-BKGDS1A	387	
1219	11/11/2010 10:27	120	158	-38	512-BKGDS1A	387	
1220	11/11/2010 10:27	122	158	-36	512-BKGDS1A	387	
1221	11/11/2010 10:27	137	158	-21	512-BKGDS1A	387	
1222	11/11/2010 10:27	144	158	-14	512-BKGDS1A	387	
1223	11/11/2010 10:27	155	158	-3	512-BKGDS1A	387	
1224	11/11/2010 10:27	143	158	-15	512-BKGDS1A	387	
1225	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1226	11/11/2010 10:28	147	158	-11	512-BKGDS1A	387	<u> </u>
1227	11/11/2010 10:28	133	158	-25	512-BKGDS1A	387	
1228	11/11/2010 10:28	136	158	-22	512-BKGDS1A	387	
L229	11/11/2010 10:28	132	158	-26	512-BKGDS1A	387	
1230	11/11/2010 10:28	148	158	-10	512-BKGDS1A	387	
1231	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1232	11/11/2010 10:28	141	158	-17	512-BKGDS1A	387	
1233	11/11/2010 10:29	120	158	-38	512-BKGDS1A	387	
1234	11/11/2010 10:29	104	158	-54	512-BKGDS1A	387	
1235	11/11/2010 10:29	113	158	-45	512-BKGDS1A	387	
1236	11/11/2010 10:29	109	158	-49	512-BKGDS1A	387	
1237	11/11/2010 10:29	119	158	-39	512-BKGDS1A	387	
1238	11/11/2010 10:29	107	158	-51	512-BKGDS1A	387	
1239	11/11/2010 10:29	125	158	-33	512-BKGDS1A	387	
1240	11/11/2010 10:29	120	158	-38	512-8KGDS1A	387	
1241	11/11/2010 10:29	90	158	-68	512-BKGDS1A	387	
1242	11/11/2010 10:30	111	158	-47	512-BKGDS1A	387	
1243	11/11/2010 10:30		158	-62	512-BKGDS1A	387	
1244	11/11/2010 10:30	103	158	-55	512-BKGDS1A	387	
1245	11/11/2010 10:30	120	158	-38	512-BKGDS1A	387	
1246	11/11/2010 10:30	107	158	-51	512-BKGDS1A	387	
1247	11/11/2010 10:30		158	-34	512-BKGDS1A	387	
1248	11/11/2010 10:31	113	158	-45	512-BKGDS1A	387	



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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3a Investigation Level (cpm)	Comments
1249	11/11/2010 10:32	140	158	-18	512-BKGDS1A	387	1
1250	11/11/2010 10:32	154	158	-4	512-BKGDS1A	387	
1251	11/11/2010 10:32	124	158	-34	512-BKGDS1A	387	
1252	11/11/2010 10:33	88	158	-70	512-BKGDS1A	387	
1253	11/11/2010 10:33	120	158	-38	512-BKGDS1A	387	
1254	11/11/2010 10:33	104	158	-54	512-BKGDS1A		
1255	11/11/2010 10:33	140	- Mary			387	
			158	-18	512-BKGDS1A	387	
1256	11/11/2010 10:33	139	158	-19	512-BKGDS1A	387	
1257	11/11/2010 10:34	150	158	-8	512-BKGDS1A	387	
1258	11/11/2010 10:34	103	158	-55	512-BKGDS1A	387	
1259	11/11/2010 10:34	121	158	-37	512-BKGDS1A	387	
1260	11/11/2010 10:34	144	158	-14	512-BKGDS1A	387	
1261	11/11/2010 10:34	171	158	13	512-BKGDS1A	387	
1262	11/11/2010 10:34	176	158	18	512-BKGDS1A	387	With the second second
1263	11/11/2010 10:34	120	158	-38	512-BKGDS1A	387	
1264	11/11/2010 10:34	97	158	-61	512-BKGDS1A	387	
1265	11/11/2010 10:35	144	158	-14	512-BKGDS1A	387	
1266	11/11/2010 10:35	128	158	-30	512-BKGDS1A	387	
1267	11/11/2010 10:35	139	158	-19	512-BKGDS1A	387	
1268	11/11/2010 10:35	171	158	13	512-BKGDS1A	387	
1269	11/11/2010 10:35	157	158	-1	512-BKGDS1A	387	
1270	11/11/2010 10:35	146	158	-12	512-BKGDS1A	387	
1271	11/11/2010 10:35	135	158	-23	512-BKGDS1A	387	
1272	11/11/2010 10:35	112	158	-46	512-BKGDS1A	387	
1273	11/11/2010 10:35	117	158	-41	512-BKGDS1A	387	
1274	11/11/2010 10:36	109	158	-49	512-BKGDS1A	387	
1275	11/11/2010 10:36	133	158	-25	512-BKGDS1A	387	
1276	11/11/2010 10:36	139	158	-19	512-BKGDS1A	387	
1277	11/11/2010 10:36	101					
			158	<i>-</i> 57	512-BKGDS1A	387	
1278	11/11/2010 10:36	115	158	-43	512-BKGDS1A	387	
1279	11/11/2010 10:36	116	158	-42	512-BKGDS1A	387	
1280	11/11/2010 10:36	120	158	-38	512-BKGD\$1A	387	



Area: 907.33 m² Site Area: 707 Survey Unit: 17 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1281	11/11/2010 10:36	113	158	-45	512-BKGDS1A	387	
1282	11/11/2010 10:36	109	158	-49	512-BKGDS1A	387	
1283	11/11/2010 10:37	101	158	-57	512-BKGDS1A	387	Haran Marian was
1284	11/11/2010 10:37	107	158	-51	512-BKGDS1A	387	
1285	11/11/2010 10:37	135	158	-23	512-BKGDS1A	387	
1286	11/11/2010 10:37	119	158	-39	512-BKGDS1A	387	
1287	11/11/2010 10:37	158	158	0	512-BKGDS1A	387	<u></u>
1288	11/11/2010 10:37	153	158	-5	512-BKGDS1A	387	
1289	11/11/2010 10:37	111	158	-47	512-BKGDS1A	387	
1290	11/11/2010 10:37	127	158	-31	512-BKGDS1A	387	
1291	11/11/2010 10:38	114	158	-44	512-BKGDS1A	387	
1292	11/11/2010 10:38	164	158	6	512-BKGDS1A	387	
1293	11/11/2010 10:38	150	158	-8	512-BKGDS1A	387	
1294	11/11/2010 10:38	165	158	7	512-BKGDS1A	387	
1295	11/11/2010 10:38	132	158	-26	512-BKGDS1A	387	
1296	11/11/2010 10:39	112	158	-46	512-BKGDS1A	387	
1297	11/11/2010 10:39	107	158	-51	512-BKGDS1A	387	
1298	11/11/2010 10:39	148	158	-10	512-BKGDS1A	387	
1299	11/11/2010 10:39	147	158	-11	512-BKGDS1A	387	
1300	11/11/2010 10:39	151	158	-7	512-BKGDS1A	387	
1301	11/11/2010 10:39	114	158	-44	512-BKGDS1A	387	
1302	11/11/2010 10:39	123	158	-35	512-BKGDS1A	387	
1303	11/11/2010 10:39	149	158	-9	512-BKGDS1A	387	
1304	11/11/2010 10:40	143	158	-15	512-BKGDS1A	387	
1305	11/11/2010 10:40	134	158	-24	512-BKGDS1A	387	
1306	11/11/2010 10:40		158	-47	512-BKGDS1A	387	
1307	11/11/2010 10:40	131	158	-27	512-BKGDS1A	387	
1308	11/11/2010 10:40	123	158	-35	512-BKGDS1A	387	450000
1309	11/11/2010 10:40		158	-22	512-BKGDS1A	387	
1310	11/11/2010 10:40		158	-49	512-BKGDS1A	387	
1311	11/11/2010 10:40	-	158	-36	512-BKGDS1A	387	
1312	11/11/2010 10:40		158	-26	512-BKGDS1A	387	



11/11/2010 10:41		-		no-tra	-			
CPM CPM CPM CPM CPM Level (com) 313 11/11/2010 10:41 118 158 -40 512-8KGDS1A 387 314 11/11/2010 10:41 111 158 -47 512-8KGDS1A 387 315 11/11/2010 10:41 156 158 -2 512-8KGDS1A 387 316 11/11/2010 10:41 185 158 -27 512-8KGDS1A 387 317 11/11/2010 10:41 185 158 27 512-8KGDS1A 387 318 11/11/2010 10:41 125 158 -33 512-8KGDS1A 387 318 11/11/2010 10:41 125 158 -33 512-8KGDS1A 387 319 11/11/2010 10:41 125 158 -33 512-8KGDS1A 387 320 11/11/2010 10:41 120 158 -38 512-8KGDS1A 387 321 11/11/2010 10:41 120 158 -38 512-8KGDS1A 387 322 11/11/2010 10:42 111 158 -47 512-8KGDS1A 387 323 11/11/2010 10:42 111 158 -47 512-8KGDS1A 387 324 11/11/2010 10:42 113 158 -45 512-8KGDS1A 387 325 11/11/2010 10:42 113 158 -45 512-8KGDS1A 387 326 11/11/2010 10:42 113 158 -45 512-8KGDS1A 387 327 11/11/2010 10:42 114 158 -45 512-8KGDS1A 387 328 11/11/2010 10:42 115 158 -45 512-8KGDS1A 387 329 11/11/2010 10:42 116 158 -45 512-8KGDS1A 387 320 11/11/2010 10:42 117 158 -41 512-8KGDS1A 387 321 11/11/2010 10:42 117 158 -41 512-8KGDS1A 387 322 11/11/2010 10:42 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-8KGDS1A 387 331 11/11/2010 10:44 145 158 -51 512-8KGDS1A 387 331 11/11/2010 10:44 125 158 -51 512-8KGDS1A 387 331 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 333 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 334 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 335 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 336 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 337 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 338 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 339 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 340 11/11/2010 10:44 125 158 -35 512-8KGDS1A 387 341 11/11/2010 10:45 158 -49 512-8KGDS1A 387 342 11/11/2010 10:45 158 158 0 512-8KGDS1A 387	Rdg #	Date / Time						Comments
313 11/11/2010 10:41 118 158 -40 512-BKGDS1A 387 314 11/11/2010 10:41 111 158 -47 512-BKGDS1A 387 315 11/11/2010 10:41 143 158 -2 512-BKGDS1A 387 316 11/11/2010 10:41 185 158 -2 512-BKGDS1A 387 317 11/11/2010 10:41 185 158 27 512-BKGDS1A 387 318 11/11/2010 10:41 125 158 -33 512-BKGDS1A 387 319 11/11/2010 10:41 125 158 -33 512-BKGDS1A 387 319 11/11/2010 10:41 120 158 -38 512-BKGDS1A 387 320 11/11/2010 10:41 120 158 -38 512-BKGDS1A 387 321 11/11/2010 10:42 111 158 -47 512-BKGDS1A 387 322 11/11/2010 10:42 101 158 -57 512-BKGDS1A 387 323 11/11/2010 10:42 101 158 -57 512-BKGDS1A 387 324 11/11/2010 10:42 113 158 -45 512-BKGDS1A 387 325 11/11/2010 10:42 113 158 -45 512-BKGDS1A 387 326 11/11/2010 10:42 116 158 -54 512-BKGDS1A 387 327 11/11/2010 10:42 116 158 -42 512-BKGDS1A 387 328 11/11/2010 10:42 117 158 -41 512-BKGDS1A 387 329 11/11/2010 10:42 116 158 -54 512-BKGDS1A 387 320 11/11/2010 10:42 116 158 -42 512-BKGDS1A 387 321 11/11/2010 10:42 117 158 -41 512-BKGDS1A 387 322 11/11/2010 10:42 117 158 -41 512-BKGDS1A 387 331 11/11/2010 10:43 117 158 -41 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 334 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 337 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 338 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 339 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:44 145 158 -35 512-BKGDS1A 387 334 11/11/2010 10:44 15 158 -39 512-BKGDS1A 387 335 11/11/2010 10:44 155 158 -39 512-BKGDS1A 387 337 11/11/2010 10:44 115 158 -49 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -46 512-BKGDS1A 387 339 11/11/2010 10:44 115 158 -46 512-BKGDS1A 387 340 11/11/2010 10:44 115 158 -49 512-BKGDS1A 387 341 11/11/2010 10:44 115 158 -49 512-BKGDS1A 387 341 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387						ID*	AND ADDRESS OF THE RESERVE AND ADDRESS OF THE PARTY.	
314 11/11/2010 10:41 111 158 -47 512-BKGDS1A 387 315 11/11/2010 10:41 143 158 -15 512-BKGDS1A 387 316 11/11/2010 10:41 143 158 -15 512-BKGDS1A 387 317 11/11/2010 10:41 125 158 -33 512-BKGDS1A 387 318 11/11/2010 10:41 125 158 -33 512-BKGDS1A 387 319 11/11/2010 10:41 125 158 -33 512-BKGDS1A 387 320 11/11/2010 10:41 120 158 -38 512-BKGDS1A 387 321 11/11/2010 10:41 120 158 -38 512-BKGDS1A 387 322 11/11/2010 10:42 111 158 -47 512-BKGDS1A 387 322 11/11/2010 10:42 111 158 -47 512-BKGDS1A 387 324 11/11/2010 10:42 113 158 -45 512-BKGDS1A 387 325 11/11/2010 10:42 113 158 -45 512-BKGDS1A 387 326 11/11/2010 10:42 113 158 -45 512-BKGDS1A 387 327 11/11/2010 10:42 114 158 -45 512-BKGDS1A 387 328 11/11/2010 10:42 104 158 -54 512-BKGDS1A 387 329 11/11/2010 10:42 116 158 -42 512-BKGDS1A 387 320 11/11/2010 10:42 116 158 -41 512-BKGDS1A 387 321 11/11/2010 10:42 117 158 -41 512-BKGDS1A 387 322 11/11/2010 10:43 117 158 -41 512-BKGDS1A 387 330 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 332 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 334 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 335 11/11/2010 10:43 112 158 -41 512-BKGDS1A 387 337 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 338 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 339 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 331 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 333 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 334 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 335 11/11/2010 10:44 125 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 125 158 -39 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -39 512-BKGDS1A 387 338 11/11/2010 10:44 125 158 -39 512-BKGDS1A 387 339 11/11/2010 10:44 15 158 -39 512-BKGDS1A 387 340 11/11/2010 10:45 158 158 0 512-BKGDS1A 387	1212	11/11/2010 10:41	Total Control of the			F42 DVCDC4 A		
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330 11/11/2010 10:43 117 158 -41 512-BKGDS1A 387 331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 332 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:43 97 158 -61 512-BKGDS1A 387 334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 158 158 0 512-BKGDS1A 387	1328	11/11/2010 10:42	117	158	-41	512-BKGDS1A	387	
331 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 332 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:43 97 158 -61 512-BKGDS1A 387 334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 158 158 0 512-BKGDS1A 387	1329	11/11/2010 10:42	84	158	-74	512-BKGDS1A	387	
332 11/11/2010 10:43 112 158 -46 512-BKGDS1A 387 333 11/11/2010 10:43 97 158 -61 512-BKGDS1A 387 334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1330	11/11/2010 10:43	117	158	-41	512-BKGDS1A	387	_(x=6)
333 11/11/2010 10:43 97 158 -61 512-BKGDS1A 387 334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1331	11/11/2010 10:43	112	158	-46	512-BKGDS1A	387	10
334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 158 158 0 512-BKGDS1A 387	1332	11/11/2010 10:43	112	158	-46	512-BKGDS1A	387	1177
334 11/11/2010 10:44 145 158 -13 512-BKGDS1A 387 335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1333	11/11/2010 10:43	97	158	-61	512-BKGDS1A	387	
335 11/11/2010 10:44 123 158 -35 512-BKGDS1A 387 336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1334	11/11/2010 10:44	145	158	-13	512-BKGDS1A	387	
336 11/11/2010 10:44 129 158 -29 512-BKGDS1A 387 337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1335							
337 11/11/2010 10:44 125 158 -33 512-BKGDS1A 387 338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1336							
338 11/11/2010 10:44 115 158 -43 512-BKGDS1A 387 339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	-							
339 11/11/2010 10:44 119 158 -39 512-BKGDS1A 387 340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387			-					
340 11/11/2010 10:44 98 158 -60 512-BKGDS1A 387 341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387								
341 11/11/2010 10:45 132 158 -26 512-BKGDS1A 387 342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387								
342 11/11/2010 10:45 158 158 0 512-BKGDS1A 387 343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1340	11/11/2010 10:44	98	158	-60	512-BKGDS1A	387	
343 11/11/2010 10:45 118 158 -40 512-BKGDS1A 387	1341	11/11/2010 10:45	132	158	-26	512-BKGDS1A	387	
	1342	11/11/2010 10:45	158	158	0	512-BKGDS1A	387	
344 11/11/2010 10:45 128 158 -30 512-BKGDS1A 387	1343	11/11/2010 10:45	118	158	-40	512-BKGDS1A	387	
	1344	11/11/2010 10:45	128	158	-30	512-BKGDS1A	387	



Survey Unit: 17 Class: 1 Area: 907.33 m² Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments
1345	11/11/2010 10:45	132	158	-26	512-BKGDS1A	387	1 C
1346	11/11/2010 10:45	124	158	-34	512-BKGDS1A	387	
1347	11/11/2010 10:45	133	158	-25	512-BKGDS1A	387	
1348	11/11/2010 10:45	121	158	-37	512-BKGDS1A	387	
1349	11/11/2010 10:45	117	158	-41	512-BKGDS1A	387	
1350	11/11/2010 10:46	113	158	-45	512-BKGDS1A	387	
1351	11/11/2010 10:46	136	158	-22	512-BKGDS1A	387	
1352	11/11/2010 10:46	104	158	-54	512-BKGDS1A	387	
1353	11/11/2010 10:46	113	158	-45	512-BKGDS1A	387	
1354	11/11/2010 10:46	110	158	-48	512-BKGDS1A	387	
1355	11/11/2010 10:46	120	158	-38	512-BKGDS1A	387	
1356	11/11/2010 10:46	124	158	-34	512-BKGDS1A	387	
1357	11/11/2010 10:46	132	158	-26	512-BKGDS1A	387	
1358	11/11/2010 10:46	105	158	-53	512-BKGDS1A	387	A THE RESERVE AND THE PARTY OF
1359	11/11/2010 10:47	94	158	-64	512-BKGDS1A	387	
1360	11/11/2010 10:47	102	158	-56	512-BKGDS1A	387	
1361	11/11/2010 10:47	134	158	-24	512-BKGDS1A	387	
1362	11/11/2010 10:47	140	158	-18	512-BKGDS1A	387	
1363	11/11/2010 10:47	169	158	11	512-BKGDS1A	387	
1364	11/11/2010 10:47	144	158	-14	512-BKGDS1A	387	
1365	11/11/2010 10:47	130	158	-28	512-BKGDS1A	387	
1366	11/11/2010 10:47	131	158	-27	512-BKGDS1A	387	
1367	11/11/2010 10:48	98	158	-60	512-BKGDS1A	387	
1368	11/11/2010 10:48	109	158	-49	512-BKGDS1A	387	
1369	11/11/2010 10:48	130	158	-28	512-BKGDS1A	387	
1370	11/11/2010 10:48	137	158	-21	512-BKGDS1A	387	
1371	11/11/2010 10:48	137	158	-21	512-BKGDS1A	387	
1372	11/11/2010 10:48	118	158	-40	512-BKGDS1A	387	ese Malacca e Sac
1373	11/11/2010 10:48	177	158	19	512-BKGDS1A	387	
1374	11/11/2010 10:48	183	158	25	512-BKGDS1A	387	
1375	11/11/2010 10:48	135	158	-23	512-BKGDS1A	387	
1376	11/11/2010 10:49	142	158	-16	512-BKGDS1A	387	



TETRATECH EC, INC. Gamma Scan Measurement Report San Prancisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1377	11/11/2010 10:49	129	158	-29	512-BKGDS1A	387	
1378	11/11/2010 10:49	113	158	-45	512-BKGDS1A	387	
1379	11/11/2010 10:50	101	158	-57	512-BKGDS1A	387	
1380	11/11/2010 10:50	121	158	-37	512-BKGDS1A	387	
1381	11/11/2010 10:50	122	158	-36	512-BKGDS1A	387	W 100
1382	11/11/2010 10:50	103	158	-55	512-BKGDS1A	387	
1383	11/11/2010 10:50	78	158	-80	512-BKGDS1A	387	
1384	11/11/2010 10:50	103	158	-55	512-BKGDS1A	387	
1385	11/11/2010 10:50	107	158	-51	512-BKGDS1A	387	
1386	11/11/2010 10:50	98	158	-60	512-BKGDS1A	387	
1387	11/11/2010 10:51	119	158	-39	512-BKGDS1A	387	
1388	11/11/2010 10:51	101	158	-57	512-BKGDS1A	387	
1389	11/11/2010 10:51	101	158	-57	512-BKGDS1A	387	
1390	11/11/2010 10:51	152	158	-6	512-BKGDS1A	387	
1391	11/11/2010 10:51	132	158	-26	512-BKGDS1A	387	
1392	11/11/2010 10:51	128	158	-30	512-BKGDS1A	387	- 2000
1393	11/11/2010 10:51	141	158	-17	512-BKGDS1A	387	
1394	11/11/2010 10:51	144	158	-14	512-BKGDS1A	387	
1395	11/11/2010 10:51	142	158	-16	512-BKGDS1A	387	
1396	11/11/2010 10:52	196	158	38	512-BKGDS1A	387	
1397	11/11/2010 10:52	176	158	18	512-BKGDS1A	387	
1398	11/11/2010 10:52	156	158	-2	512-BKGDS1A	387	
1399	11/11/2010 10:52	114	158	-44	512-BKGDS1A	387	
1400	11/11/2010 10:52	114	158	-44	512-BKGDS1A	387	
1401	11/11/2010 10:52	147	158	-11	512-BKGDS1A	387	
1402	11/11/2010 10:52	166	158	8	512-BKGDS1A	387	
1403	11/11/2010 10:52	148	158	-10	512-BKGDS1A	387	
1404	11/11/2010 10:52	147	158	-11	512-BKGDS1A	387	
1405	11/11/2010 10:53	118	158	-40	512-BKGDS1A	387	
1406	11/11/2010 10:53	140	158	-18	512-BKGDS1A	387	
1407	11/11/2010 10:53	103	158	-5 5	512-BKGDS1A	387	
1408	11/11/2010 10:53	123	158	-35	512-BKGDS1A	387	-1816



Survey Unit: 17 Area: 907.33 m² Site Area: 707 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3o Investigation Level (cpm)	Comments	•
1409	11/11/2010 10:53	162	158	4	512-BKGDS1A	387		
1410	11/11/2010 10:53	140	158	-18	512-BKGDS1A	387	1	
1411	11/11/2010 10:53	139	158	-19	512-BKGDS1A	387		
1412	11/11/2010 10:53	138	158	-20	512-BKGDS1A	387		
1413	11/11/2010 10:54	154	158	-4	512-BKGDS1A	387		
1414	11/11/2010 10:54	183	158	25	512-BKGDS1A	387		
1415	11/11/2010 10:54	157	158	-1	512-BKGDS1A	387		
1416	11/11/2010 10:54	173	158	15	512-BKGDS1A	387		
1417	11/11/2010 10:54	157	158	-1	512-BKGDS1A	387		
1418	11/11/2010 10:54	148	158	-10	512-BKGDS1A	387		
1419	11/11/2010 10:54	135	158	-23	512-BKGDS1A	387		
1420	11/11/2010 10:55	127	158	-31	512-BKGDS1A	387		_
1421	11/11/2010 10:55	131	158	-27	512-BKGDS1A	387	-2.165	(
1422	11/11/2010 10:55	141	158	-17	512-BKGDS1A	387		
1423	11/11/2010 10:55	194	158	36	512-BKGDS1A	387		
1424	11/11/2010 10:55	136	158	-22	512-BKGDS1A	387		
1425	11/11/2010 10:55	108	158	-50	512-BKGDS1A	387		
1426	11/11/2010 10:55	139	158	-19	512-BKGDS1A	387		
1427	11/11/2010 10:55	104	158	-54	512-BKGDS1A	387		
1428	11/11/2010 10:56	84	158	-74	512-BKGDS1A	387		
1429	11/11/2010 10:56	81	158	-77	512-BKGDS1A	387		
1430	11/11/2010 10:56	120	158	-38	512-BKGDS1A	387	1000	
1431	11/11/2010 10:56		158	-29	512-BKGDS1A	387		
1432	11/11/2010 10:56	142	158	-16	512-BKGDS1A	387		
1433	11/11/2010 10:56	117	158	-41	512-BKGDS1A	387		
1434	11/11/2010 10:56		158	<i>-</i> 57	512-BKGDS1A	387		
1435	11/11/2010 10:56		158	-45	512-BKGDS1A	387		
1436	11/11/2010 10:56		158	-28	512-BKGDS1A	387		
1437	11/11/2010 10:57		158	-35	512-BKGDS1A	387		1
1438	11/11/2010 10:57		158	-13	512-BKGDS1A	387		
1439	11/11/2010 10:57		158	-60	512-BKGDS1A	387		(
1440	11/11/2010 10:57		158	-49	512-BKGDS1A	387		ľ



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1441	11/11/2010 10:57	101	158	-57	512-BKGDS1A	387	
1442	11/11/2010 10:57	128	158	-30	512-BKGDS1A	387	
1443	11/11/2010 10:57	132	158	-26	512-BKGDS1A	387	
1444	11/11/2010 10:57	124	158	-34	512-BKGDS1A	387	
1445	11/11/2010 10:58	124	158	-34	512-BKGDS1A	387	
1446	11/11/2010 10:58	118	158	-40	512-BKGDS1A	387	
1447	11/11/2010 10:58	130	158	-28	512-BKGDS1A	387	
1448	11/11/2010 10:58	129	158	-29	512-BKGDS1A	387	
1449	11/11/2010 10:58	102	158	-56	512-BKGDS1A	387	
1450	11/11/2010 10:58	148	158	-10	512-BKGDS1A	387	12.7
1451	11/11/2010 10:58	150	158	-8	512-BKGDS1A	387	
1452	11/11/2010 10:58	114	158	-44	512-BKGDS1A	387	
1453	11/11/2010 10:58	124	158	-34	512-BKGDS1A	387	
1454	11/11/2010 10:59	97	158	-61	512-BKGDS1A	387	
1455	11/11/2010 10:59	117	158	-41	512-BKGDS1A	387	
1456	11/11/2010 10:59	113	158	-45	512-BKGDS1A	387	
1457	11/11/2010 10:59	99	158	-59	512-BKGDS1A	387	
1458	11/11/2010 10:59	136	158	-22	512-BKGDS1A	387	
1459	11/11/2010 10:59	131	158	-27	512-BKGDS1A	387	
1460	11/11/2010 10:59	97	158	-61	512-BKGDS1A	387	
1461	11/11/2010 10:59	76	158	-82	512-BKGDS1A	387	
1462	11/11/2010 11:00	110	158	-48	512-BKGDS1A	387	
1463	11/11/2010 11:00	150	158	-8	512-BKGDS1A	387	
1464	11/11/2010 11:00	140	158	-18	512-BKGDS1A	387	
1465	11/11/2010 11:00	141	158	-17	512-BKGDS1A	387	
1466	11/11/2010 11:00	146	158	-12	512-BKGDS1A	387	
1467	11/11/2010 11:00	129	158	-29	512-BKGDS1A	387	No.
1468	11/11/2010 11:00	126	158	-32	512-BKGDS1A	387	
1469	11/11/2010 11:01	135	158	-23	512-BKGDS1A	387	
1470	11/11/2010 11:01	148	158	-10	512-BKGDS1A	387	
1471	11/11/2010 11:01	129	158	-29	512-BKGDS1A	387	
1472	11/11/2010 11:01	160	158	2	512-BKGDS1A	387	
		//					



Area: 907.33 m² Survey Unit: 17 Class: 1 Site Area: 707

Rdg#	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
1473	11/11/2010 11:01	129	158	-29	512-BKGDS1A	387	
1474	11/11/2010 11:01	125	158	-33	512-BKGDS1A	387	
1475	11/11/2010 11:01	140	158	-18	512-BKGDS1A	387	
1476	11/11/2010 11:01	116	158	-42	512-BKGDS1A	387	
1477	11/11/2010 11:01	117	158	-41	512-BKGDS1A	387	
1478	11/11/2010 11:02	121	158	-37	512-BKGDS1A	387	
1479	11/11/2010 11:02	111	158	-47	512-BKGDS1A	387	
1480	11/11/2010 11:02	124	158	-34	512-BKGDS1A	387	
1481	11/11/2010 11:02	136	158	-22	512-BKGD\$1A	387	
1482	11/11/2010 11:02	102	158	-56	512-BKGDS1A	387	10 S - 1
1483	11/11/2010 11:02	152	158	-6	512-BKGD\$1A	387	
1484	11/11/2010 11:02	144	158	-14	512-BKGDS1A	387	
1485	11/11/2010 11:02	158	158	0	512-BKGDS1A	387	
1486	11/11/2010 11:03	149	158	-9	512-BKGDS1A	387	
1487	11/11/2010 11:03	141	158	-17	512-BKGDS1A	387	The second secon
1488	11/11/2010 11:03	124	158	-34	512-BKGDS1A	387	
1489	11/11/2010 11:03	152	158	-6	512-BKGDS1A	387	
1490	11/11/2010 11:03	123	158	-35	512-BKGDS1A	387	
1491	11/11/2010 11:03	124	158	-34	512-BKGDS1A	387	
1492	11/11/2010 11:03		158	-23	512-BKGDS1A	387	
1493	11/11/2010 11:03		158	-46	512-BKGDS1A	387	
1494	11/11/2010 11:03		158	-27	512-BKGDS1A	387	
1495	11/11/2010 11:04		158	-53	512-BKGDS1A	387	
1496	11/11/2010 11:04		158	-40	512-BKGDS1A	387	
1497	11/11/2010 11:04	-	158	-49	512-BKGDS1A	387	10,29
1498	11/11/2010 11:04		158	-48	512-BKGDS1A	387	
1499	11/11/2010 11:04		158	-38	512-BKGDS1A	387	
1500	11/11/2010 11:04		158	-61	512-BKGDS1A	387	
1501	11/11/2010 11:04		158	-44	512-BKGDS1A	387	
1502	11/11/2010 11:04		158	-61	512-BKGDS1A	387	
1503	11/11/2010 11:05		158	-63	512-BKGDS1A	387	
1504	11/11/2010 11:05		158	-73	512-BKGDS1A	387	



Site Area: 707 Survey Unit: 17 Area: 907.33 m² Class: 1

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	СРМ	СРМ		Level (cpm)	
1505	11/11/2010 11:05	113	158	-45	512-BKGDS1A	387	
1506	11/11/2010 11:05	111	158	-47	512-BKGDS1A	387	
1507	11/11/2010 11:05	116	158	-42	512-BKGDS1A	387	
1508	11/11/2010 11:05	108	158	-50	512-BKGDS1A	387	
1509	11/11/2010 11:06	122	158	-36	512-BKGDS1A	387	
1510	11/11/2010 11:06	119	158	-39	512-BKGDS1A	387	
1511	11/11/2010 11:06	130	158	-28	512-BKGDS1A	387	
1512	11/11/2010 11:06	138	158	-20	512-BKGDS1A	387	
1513	11/11/2010 11:06	129	158	-29	512-BKGDS1A	387	Max and the second
1514	11/11/2010 11:06	109	158	-49	512-BKGDS1A	387	
1515	11/11/2010 11:06	119	158	-39	512-BKGDS1A	387	
1516	11/11/2010 11:06	150	158	-8	512-BKGDS1A	387	
1517	11/11/2010 11:07	147	158	-11	512-BKGDS1A	387	
1518	11/11/2010 11:07	170	158	12	512-BKGDS1A	387	
1519	11/11/2010 11:07	139	158	-19	512-BKGDS1A	387	
1520	11/11/2010 11:07	121	158	-37	512-BKGDS1A	387	NATE OF THE PERSON OF THE PERS
1521	11/11/2010 11:07	107	158	-51	512-BKGDS1A	387	
1522	11/11/2010 11:07	101	158	-57	512-BKGDS1A	387	
1523	11/11/2010 11:07	112	158	-46	512-BKGDS1A	387	
1524	11/11/2010 11:07	120	158	-38	512-BKGDS1A	387	
1525	11/11/2010 11:07	125	158	-33	512-BKGDS1A	387	
1526	11/11/2010 11:08	122	158	-36	512-BKGDS1A	387	1. 19
1527	11/11/2010 11:08	87	158	-71	512-BKGDS1A	387	
1528	11/11/2010 11:08	74	158	-84	512-BKGDS1A	387	
1529	11/11/2010 11:08	128	158	-30	512-BKGDS1A	387	
1530	11/11/2010 11:08	121	158	-37	512-BKGDS1A	387	
1531	11/11/2010 11:08	109	158	-49	512-BKGDS1A	387	
1532	11/11/2010 11:08	142	158	-16	512-BKGDS1A	387	
1533	11/11/2010 11:08	138	158	-20	512-BKGDS1A	387	
1534	11/11/2010 11:09	142	158	-16	512-BKGDS1A	387	
1535	11/11/2010 11:09	148	158	-10	512-BKGDS1A	387	PT THE DITTO
1536	11/11/2010 11:09	156	158	-2	512-BKGDS1A	387	



Area: 907.33 m² Site Area: 707 Survey Unit: 17 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1537	11/11/2010 11:09	135	158	-23	512-BKGDS1A	387	
1538	11/11/2010 11:09	138 .	158	-20	512-BKGDS1A	387	
1539	11/11/2010 11:09	114	158	-44	512-BKGDS1A	387	
1540	11/11/2010 11:09	112	158	-46	512-BKGDS1A	387	
1541	11/11/2010 11:09	150	158	-8	512-BKGDS1A	387	
1542	11/11/2010 11:09	138	158	-20	512-BKGDS1A	387	
1543	11/11/2010 11:10	119	158	-39	512-BKGDS1A	387	
1544	11/11/2010 11:10	116	158	-42	512-BKGD51A	387	
1545	11/11/2010 11:10	121	158	-37	512-BKGDS1A	387	
1546	11/11/2010 11:10	119	158	-39	512-BKGDS1A	387	
1547	11/11/2010 11:10	108	158	-50	512-BKGDS1A	387	
1548	11/11/2010 11:10	121	158	-37	512-BKGDS1A	387	V-15/03/ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1549	11/11/2010 11:11	176	158	18	512-BKGDS1A	387	Contact the second
1550	11/11/2010 11:11	145	158	-13	512-BKGDS1A	387	La La Caracia
1551	11/11/2010 11:11	121	158	-37	512-BKGDS1A	387	
1552	11/11/2010 11:11	119	158	-39	512-BKGDS1A	387	
1553	11/11/2010 11:11	121	158	-37	512-BKGDS1A	387	
1554	11/11/2010 11:11	108	158	-50	512-BKGDS1A	387	
1555	11/11/2010 11:14		158	-43	512-BKGDS1A	387	
1556	11/11/2010 11:14	***	158	12	512-BKGDS1A	387	
1557	11/11/2010 11:14	1.0	158	-13	512-BKGDS1A	387	
1558	11/11/2010 11:14		158	-15	512-BKGDS1A	387	
1559	11/11/2010 11:14		158	1	512-BKGDS1A	387	
1560	11/11/2010 11:14		158	-15	512-BKGDS1A	387	
1561	11/11/2010 11:14	117	158	-41	512-BKGDS1A	387	
1562	11/11/2010 11:14		158	-47	512-BKGDS1A	387	
1563	11/11/2010 11:15		158	-15	512-BKGDS1A	387	
1564	11/11/2010 11:15		158	-61	512-BKGDS1A	387	1
1565	11/11/2010 11:15		158	-71	512-BKGDS1A	387	
1566	11/11/2010 11:15		158	-77	512-BKGDS1A	387	
1567	11/11/2010 11:19		158	-78	512-BKGDS1A	387	
1568	11/11/2010 11:19		158	-72	512-BKGDS1A	387	



Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1569	11/11/2010 11:15	122	158	-36	512-BKGDS1A	387	
1570	11/11/2010 11:15	136	158	-22	512-BKGDS1A	387	- 80
1571	11/11/2010 11:15	129	158	-29	512-BKGDS1A	387	
1572	11/11/2010 11:16	80	158	-78	512-BKGDS1A	387	
1573	11/11/2010 11:16	121	158	-37	512-BKGDS1A	387	
1574	11/11/2010 11:16	81	158	-77	512-BKGDS1A	387	
1575	11/11/2010 11:16	100	158	-58	512-BKGDS1A	387	
1576	11/11/2010 11:16	85	158	-73	512-BKGDS1A	387	
1577	11/11/2010 11:16	107	158	-51	512-BKGDS1A	387	
1578	11/11/2010 11:16	108	158	-50	512-BKGDS1A	387	
1579	11/11/2010 11:16	137	158	-21	512-BKGDS1A	387	
1580	11/11/2010 11:17	122	158	-36	512-BKGDS1A	387	
1581	11/11/2010 11:17	101	158	-57	512-BKGDS1A	387	
1582	11/11/2010 11:17	140	158	-18	512-BKGDS1A	387	
1583	11/11/2010 11:17	151	158	-7	512-BKGDS1A	387	
1584	11/11/2010 11:17	169	158	11	512-BKGDS1A	387	
1585	11/11/2010 11:17	159	158	1	512-BKGDS1A	387	
1586	11/11/2010 11:17	158	158	0	512-BKGDS1A	387	
1587	11/11/2010 11:17	140	158	-18	512-BKGDS1A	387	
1588	11/11/2010 11:17	126	158	-32	512-BKGDS1A	387	20 0 - 10
1589	11/11/2010 11:18	130	158	-28	512-BKGDS1A	387	
1590	11/11/2010 11:18	152	158	-6	512-BKGDS1A	387	
1591	11/11/2010 11:18	182	158	24	512-BKGDS1A	387	
1592	11/11/2010 11:32	155	158	-3	512-BKGDS1A	387	
1593	11/11/2010 11:32	163	158	5	512-BKGDS1A	387	
1594	11/11/2010 11:32	202	158	44	512-BKGDS1A	387	
1595	11/11/2010 11:32	213	158	55	512-BKGDS1A	387	
1596	11/11/2010 11:32	223	158	65	512-BKGDS1A	387	
1597	11/11/2010 11:33	167	158	9	512-BKGDS1A	387	
1598	11/11/2010 11:33	158	158	0	512-BKGDS1A	387	
1599	11/11/2010 11:33	117	158	-41	512-BKGDS1A	387	
1600	11/11/2010 11:33	103	158	-55	512-BKGDS1A	387	



TETRATECH EC. INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	СРМ		Level (cpm)	
1601	11/11/2010 11:33	89	158	-69	512-BKGDS1A	387	
1602	11/11/2010 11:33	132	158	-26	512-BKGDS1A	387	
1603	11/11/2010 11:34	115	158	-43	512-BKGDS1A	387	
1604	11/11/2010 11:34	119	158	-39	512-BKGDS1A	387	
1605	11/11/2010 11:34	110	158	-48	512-BKGDS1A	387	
1606	11/11/2010 11:34	111	158	-47	512-BKGDS1A	387	
1607	11/11/2010 11:34	101	158	-57	512-BKGDS1A	387	
1608	11/11/2010 11:34	109	158	-49	512-BKGDS1A	387	
1609	11/11/2010 11:34	117	158	-41	512-BKGDS1A	387	
1610	11/11/2010 11:34	122	158	-36	512-BKGDS1A	387	
1611	11/11/2010 11:34	102	158	-56	512-BKGDS1A	387	
1612	11/11/2010 11:35	115	158	-43	512-BKGDS1A	387	V 40 92 - 10000
1613	11/11/2010 11:35	103	158	-55	512-BKGDS1A	387	
1614	11/11/2010 11:35	155	158	-3	512-BKGDS1A	387	
1615	11/11/2010 11:35	149	158	-9	512-BKGDS1A	387	
1616	11/11/2010 11:35	136	158	-22	512-BKGDS1A	387	
1617	11/11/2010 11:35	116	158	-42	512-BKGDS1A	387	
1618	11/11/2010 11:35	133	158	-25	512-BKGDS1A	387	
1619	11/11/2010 11:35	126	158	-32	512-BKGDS1A	387	
1620	11/11/2010 11:36	129	158	-29	512-BKGDS1A	387	
1621	11/11/2010 11:36	117	158	-41	512-BKGDS1A	387	
1622	11/11/2010 11:36	88	158	-70	512-BKGDS1A	387	
1623	11/11/2010 11:36	149	158	-9	512-BKGDS1A	387	
1624	11/11/2010 11:36	131	158	-27	512-BKGDS1A	387	
1625	11/11/2010 11:36	124	158	-34	512-BKGDS1A	387	
1626	11/11/2010 11:36	117	158	-41	512-BKGDS1A	387	
1627	11/11/2010 11:36	90	158	-68	512-BKGDS1A	387	1000
1628	11/11/2010 11:36	86	158	-72	512-BKGDS1A	387	
1629	11/11/2010 11:37	70	158	-88	512-BKGDS1A	387	
1630	11/11/2010 11:37	96	158	-62	512-BKGDS1A	387	
1631	11/11/2010 11:37		158	-56	512-BKGDS1A	387	
1632	11/11/2010 11:37	_	158	-4	512-BKGDS1A	387	



Survey Unit: 17 Area: 907.33 m² Site Area: 707 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1633	11/11/2010 11:37	104	158	-54	512-BKGDS1A	387	
1634	11/11/2010 11:37	111	158	-47	512-BKGDS1A	387	
1635	11/11/2010 11:38	151	158	-7	512-BKGDS1A	387	No. of Control
1636	11/11/2010 11:38	147	158	-11	512-BKGDS1A	387	
1637	11/11/2010 11:38	124	158	-34	512-BKGDS1A	387	10 10 10 10 10 10 10 10 10 10 10 10 10 1
1638	11/11/2010 11:38	132	158	-26	512-BKGDS1A	387	
1639	11/11/2010 11:38	119	158	-39	512-BKGDS1A	387	
1640	11/11/2010 11:38	109	158	-49	512-BKGDS1A	387	
1641	11/11/2010 11:38	123	158	-35	512-BKGDS1A	387	. Wash
1642	11/11/2010 11:38	89	158	-69	512-BKGDS1A	387	
1643	11/11/2010 11:38	108	158	-50	512-BKGDS1A	387	
1644	11/11/2010 11:39	109	158	-49	512-BKGDS1A	387	
1645	11/11/2010 11:39	126	158	-32	512-BKGDS1A	387	
1646	11/11/2010 11:39	137	158	-21	512-BKGD\$1A	387	
1647	11/11/2010 11:39	156	158	-2	512-BKGDS1A	387	
1648	11/11/2010 11:39	108	158	-50	512-BKGDS1A	387	
1649	11/11/2010 11:39	164	158	6	512-BKGDS1A	387	
1650	11/11/2010 11:39	122	158	-36	512-BKGDS1A	387	
1651	11/11/2010 11:39	134	158	-24	512-BKGDS1A	387	
1652	11/11/2010 11:40	128	158	-30	512-BKGDS1A	387	
1653	11/11/2010 11:40	113	158	-45	512-BKGDS1A	387	_ 2000 M S
1654	11/11/2010 11:40	134	158	-24	512-BKGDS1A	387	
1655	11/11/2010 11:40	126	158	-32	512-BKGDS1A	387	
1656	11/11/2010 11:40	127	158	-31	512-BKGDS1A	387	
1657	11/11/2010 11:40	121	158	-37	512-BKGDS1A	387	
1658	11/11/2010 11:40	123	158	-35	512-BKGDS1A	387	
1659	11/11/2010 11:40	90	158	-68	512-BKGDS1A	387	
1660	11/11/2010 11:40	97	158	-61	512-BKGDS1A	387	
1661	11/11/2010 11:41	143	158	-15	512-BKGDS1A	387	
1662	11/11/2010 11:41	122	158	-36	512-BKGDS1A	387	
1663	11/11/2010 11:41	111	158	-47	512-BKGDS1A	387	
1664	11/11/2010 11:41	119	158	-39	512-BKGDS1A	387	



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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1665	11/11/2010 11:41	138	158	-20	512-BKGDS1A	387		Ī
1666	11/11/2010 11:41	126	158	-32	512-BKGDS1A	387		İ
1667	11/11/2010 11:41	134	158	-24	512-BKGDS1A	387		ĺ
1668	11/11/2010 11:41	130	158	-28	512-BKGDS1A	387		İ
1669	11/11/2010 11:42	123	158	-35	512-BKGDS1A	387		ĺ
1670	11/11/2010 11:42	124	158	-34	512-BKGDS1A	387		İ
1671	11/11/2010 11:42	100	158	-58	512-BKGDS1A	387		İ
1672	11/11/2010 11:42	129	158	-29	512-BKGDS1A	387		İ
1673	11/11/2010 11:42	151	158	-7	512-BKGDS1A	387		
1674	11/11/2010 11:42	111	158	-47	512-BKGDS1A	387		j
1675	11/11/2010 11:42	120	158	-38	512-BKGDS1A	387		
1676	11/11/2010 11:42	149	158	-9	512-BKGDS1A	387		
1677	11/11/2010 11:42	151	158	-7	512-BKGDS1A	387	-	
1678	11/11/2010 11:43	140	158	-18	512-BKGDS1A	387		
1679	11/11/2010 11:43	116	158	-42	512-BKGDS1A	387		
1680	11/11/2010 11:43	90	158	-68	512-BKGDS1A	387		
1681	11/11/2010 11:43	99	158	-59	512-BKGDS1A	387		
1682	11/11/2010 11:43	88	158	-70	512-BKGDS1A	387		
1683	11/11/2010 11:43	140	158	-18	512-BKGDS1A	387		
1684	11/11/2010 11:43	107	158	-51	512-BKGDS1A	387		
1685	11/11/2010 11:44	100	158	-58	512-BKGDS1A	387		
1686	11/11/2010 11:44	100	158	-58	512-BKGDS1A	387		
1687	11/11/2010 11:44	103	158	-55	512-BKGDS1A	387		
1688	11/11/2010 11:44	80	158	-78	512-BKGDS1A	387		
1689	11/11/2010 11:44	126	158	-32	512-BKGDS1A	387		
1690	11/11/2010 11:44	113	158	-45	512-BKGDS1A	387		
1691	11/11/2010 11:44	92	158	-66	512-BKGDS1A	387		
1692	11/11/2010 11:44	154	158	-4	512-BKGDS1A	387		
1693	11/11/2010 11:45	114	158	-44	512-BKGDS1A	387		
1694	11/11/2010 11:45	125	158	-33	512-BKGDS1A	387		
1695	11/11/2010 11:45	125	158	-33	512-BKGDS1A	387		
1696	11/11/2010 11:45	136	158	-22	512-BKGDS1A	387		
			201					



TETRATECH EC, INC. Hunters Point Shippyard San Francisco, CA Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1697	11/11/2010 11:45	131	158	-27	512-BKGDS1A	387	
1698	11/11/2010 11:45	114	158	-44	512-BKGDS1A	387	
1699	11/11/2010 11:45	99	158	-59	512-BKGDS1A	387	
1700	11/11/2010 11:45	111	158	-47	512-BKGDS1A	387	
1701	11/11/2010 11:45	115	158	-43	512-BKGDS1A	387	
1702	11/11/2010 11:46	152	158	-6	512-BKGDS1A	387	
1703	11/11/2010 11:46	180	158	22	512-BKGDS1A	387	
1704	11/11/2010 11:46	161	158	3	512-BKGDS1A	387	
1705	11/11/2010 11:46	122	158	-36	512-BKGDS1A	387	
1706	11/11/2010 11:46	104	158	-54	512-BKGDS1A	387	
1707	11/11/2010 11:46	120	158	-38	512-BKGDS1A	387	
1708	11/11/2010 11:46	128	158	-30	512-BKGDS1A	387	
1709	11/11/2010 11:46	104	158	-54	512-BKGDS1A	387	
1710	11/11/2010 11:47	105	158	-53	512-BKGDS1A	387	
1711	11/11/2010 11:47	119	158	-39	512-BKGDS1A	387	
1712	11/11/2010 11:47	124	158	-34	512-BKGDS1A	387	
1713	11/11/2010 11:47	96	158	-62	512-BKGDS1A	387	· · · · · · · · · · · · · · · · · · ·
1714	11/11/2010 11:47	100	158	-58	512-BKGDS1A	387	
1715	11/11/2010 11:47	142	158	-16	512-BKGDS1A	387	
1716	11/11/2010 11:47	129	158	-29	512-BKGDS1A	387	
1717	11/11/2010 11:47	145	158	-13	512-BKGDS1A	387	The system of th
1718	11/11/2010 11:47	131	158	-27	512-BKGDS1A	387	
1719	11/11/2010 11:48	132	158	-26	512-BKGDS1A	387	
1720	11/11/2010 11:48	106	158	-52	512-BKGDS1A	387	10.00 AV 2/4 AV 10.00
1721	11/11/2010 11:48	98	158	-60	512-BKGDS1A	387	
1722	11/11/2010 11:48	123	158	-35	512-BKGDS1A	387	
1723	11/11/2010 11:48	126	158	-32	512-BKGDS1A	387	
1724	11/11/2010 11:48	126	158	-32	512-BKGDS1A	387	
1725	11/11/2010 11:48	129	158	-29	512-BKGDS1A	387	
1726	11/11/2010 11:49	127	158	-31	512-BKGDS1A	387	
1727	11/11/2010 11:49	113	158	-45	512-BKGDS1A	387	
1728	11/11/2010 11:49	115	158	-43	512-BKGDS1A	387	



Class: 1 Area: 907.33 m² Survey Unit: 17 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
1729	11/11/2010 11:49	91	158	-67	512-BKGDS1A	387		
1730	11/11/2010 11:49	134	158	-24	512-BKGDS1A	387		
1731	11/11/2010 11:49	131	158	-27	512-BKGDS1A	387		
1732	11/11/2010 11:49	165	158	7	512-BKGDS1A	387		
1733	11/11/2010 11:49	157	158	-1	512-BKGDS1A	387		
1734	11/11/2010 11:49	140	158	-18	512-BKGD51A	387		
1735	11/11/2010 11:50	104	158	-54	512-BKGDS1A	387		
1736	11/11/2010 11:50	110	158	-48	512-BKGDS1A	387		
1737	11/11/2010 11:50	145	158	-13	512-BKGDS1A	387		
1738	11/11/2010 11:50	141	158	-17	512-BKGDS1A	387		
1739	11/11/2010 11:50	136	158	-22	512-BKGDS1A	387		
1740	11/11/2010 11:50	131	158	-27	512-BKGDS1A	387	10 12 12 12 12 12 12	
1741	11/11/2010 11:50	103	158	-55	512-BKGDS1A	387		
1742	11/11/2010 11:50	141	158	-17	512-BKGDS1A	387		
1743	11/11/2010 11:51	161	158	3	512-BKGDS1A	387		١
1744	11/11/2010 11:51	136	158	-22	512-BKGDS1A	387		Ī
1745	11/11/2010 11:51	187	158	29	512-BKGDS1A	387		1
1746	11/11/2010 11:51	158	158	0	512-BKGDS1A	387		
1747	11/11/2010 11:51	158	158	0	512-BKGDS1A	387		Ī
1748	11/11/2010 11:51	145	158	-13	512-BKGDS1A	387		1
1749	11/11/2010 11:51	110	158	-48	512-BKGDS1A	387		1
1750	11/11/2010 11:51	98	158	-60	512-BKGDS1A	387		Ī
1751	11/11/2010 11:51	87	158	-71	512-BKGDS1A	387		1
1752	11/11/2010 11:52	126	158	-32	512-BKGDS1A	387		1
1753	11/11/2010 11:52		158	-21	512-BKGDS1A	387		١
1754	11/11/2010 11:52	. 88	158	-70	512-BKGDS1A	387		١
1755	11/11/2010 11:52		158	-67	512-BKGDS1A	387	9	ĺ
1756	11/11/2010 11:52		158	-56	512-BKGDS1A	387		j
1757	11/11/2010 11:52		158	-13	512-BKGDS1A	387		j
1758	11/11/2010 11:52		158	-16	512-BKGDS1A	387		1
1759	11/11/2010 11:52		158	-19	512-BKGDS1A	387		1
1760	11/11/2010 11:52		158	-40	512-BKGDS1A	387		1



Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
1761	11/11/2010 11:53	122	158	-36	512-BKGDS1A	387	
1762	11/11/2010 11:53	155	158	-3	512-BKGDS1A	387	
1763	11/11/2010 11:53	140	158	-18	512-BKGDS1A	387	100 Aug 1

Net Gamma cpm

Min: -109

Summary

Avg: -23

Max: 66

St Dev: 26

Readings > 3σ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



TETRATECH EC, INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Poport **Background Report**

Site Area: 707 Class: 1 Area: 907.33 m² Survey Unit: 17

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 512 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228695 Probe Serial #: 022006AE1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 512-BKGDS1A Count Time (minutes): 1.00

Rdg#	Date and Time	Gross Gamma CPM
1	11/02/2010 8:19	162
2	11/02/2010 8:20	147
3	11/02/2010 8:22	160
4	11/02/2010 8:23	151
5	11/02/2010 8:25	138
6	11/02/2010 B:26	134
7	11/02/2010 B:2B	127
8	11/02/2010 8:29	141
9	11/02/2010 8:30	152
10	11/02/2010 8:31	150
11	11/02/2010 8:32	120
12	11/02/2010 8:34	158
13	11/02/2010 8:35	122
14	11/02/2010 8:36	478
15	11/02/2010 8:38	141
16	11/02/2010 8:39	133
17	11/02/2010 8:40	147
18	11/02/2010 8:41	128
19	11/02/2010 8:42	138
20	11/02/2010 8:43	132

Gamma Mean Background (cpm):

158

Standard Deviation:

76

Gamma 3₀ Investigation

387

Level (cpm):

Site Area: 707 Survey Unit: 17 Class: 1 Area: 907.33 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 421-BKGDS1

Instrument Serial Number:

167145

Reference Area Background Parcel D-1

Instrument Calibration Due Date: 3/5/2011

Location:

Reference

Exposure Rate

Identification #:

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	11/19/2010	7	
2	11/19/2010	7	
3	11/19/2010	6	
4	11/19/2010	7	
5	11/19/2010	7	
6	11/19/2010	6	
7	11/19/2010	7	
8	11/19/2010	8	
9	11/19/2010	8	
10	11/19/2010	7	•
11	11/19/2010	8	
12	11/19/2010	7	
13	11/19/2010	6	
14	11/19/2010	8	
15	11/19/2010	7	
16	11/19/2010	6	50 00 H N
17	11/19/2010	7	
18	11/19/2010	7	
19	11/19/2010	6	
20	11/19/2010	7	
21	11/30/2010	7	
22	11/30/2010	7	
23	11/30/2010	8	
24	11/30/2010	8	
25	11/30/2010	8	
26	11/30/2010	7	
27	11/30/2010	6	

TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shippard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments	
28	11/30/2010	7		
29	11/30/2010	8		
30	11/30/2010	8		
31	11/30/2010	8		
32	11/30/2010	7		
33	11/30/2010	8		
34	11/30/2010	8		
35	11/30/2010	8		
36	11/30/2010	8		
37	1/17/2011	6		
38	1/17/2011	5	0.5 94454.	10
39	1/17/2011	6		
40	2/15/2011	5		
41	2/15/2011	5	- W 05046	

Instrument Model: Model 19 Reference Area Background 578-BKGDS1

Instrument Serial Number: 207505 Identification #:

Instrument Calibration Due Date: 2/24/2012 Reference Area Background Location: Reference

Exposure Rate 5

Background (μR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
42	3/8/2011	6	
43	3/8/2011	6	
44	3/8/2011	6	
45	3/8/2011	6	
46	3/8/2011	6	
47	3/8/2011	6	
48	3/8/2011	6	
49	3/8/2011	6	
50	3/8/2011	6	
51	3/8/2011	6	The state of the s
52	3/8/2011	6	
53	3/8/2011	6	
54	3/8/2011	6	311
55	3/8/2011	4	



TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

56 3/8/2011 4 57 3/8/2011 6 58 3/8/2011 6 59 3/8/2011 4 60 3/8/2011 6 61 3/8/2011 6 62 5/6/2011 5 63 5/6/2011 6 64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6 82 6/8/2011 6 83	Rdg #	Date	Exposure Rate (µR/hr)	Comments
58 3/8/2011 6 59 3/8/2011 4 60 3/8/2011 6 61 3/8/2011 6 62 5/6/2011 5 63 5/6/2011 6 64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6 82 6/8/2011 6	56	3/8/2011		
59 3/8/2011 4 60 3/8/2011 6 61 3/8/2011 6 62 5/6/2011 5 63 5/6/2011 6 64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6 82 6/8/2011 6	57	3/8/2011	6	
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61 3/8/2011 6 62 5/6/2011 5 63 5/6/2011 6 64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 68 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 78 6/8/2011 6 79 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 78 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6	59	3/8/2011	4	
62 5/6/2011 5 63 5/6/2011 6 64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 68 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6 82 6/8/2011 6	60	3/8/2011	6	
63	61	3/8/2011	6	
64 6/8/2011 6 65 6/8/2011 6 66 6/8/2011 6 67 6/8/2011 6 68 6/8/2011 6 69 6/8/2011 6 70 6/8/2011 6 71 6/8/2011 6 72 6/8/2011 6 73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 78 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6	62	5/6/2011	5	
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73 6/8/2011 6 74 6/8/2011 6 75 6/8/2011 6 76 6/8/2011 6 77 6/8/2011 6 78 6/8/2011 6 79 6/8/2011 6 80 6/8/2011 6 81 6/8/2011 6 82 6/8/2011 6	71	6/8/2011	6	
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82 6/8/2011 6	80	6/8/2011	6	
	81	6/8/2011	6	
83 6/8/2011 6	82	6/8/2011	6	
	83	6/8/2011	6	

Exposure Rate Summary (µR/hr)

Min: 4.00

Avg: 6.41

Max: 8.00

St Dev: 0.95

Chain-of-Custody Reord

BFS 01720

TET ECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Project Name Radiological Building Survey	Irvey	PO Number	,15%	AN AN		H	-	\vdash	F	-	L	-	ABORATORY NAME	Project Information	formation	
Project Location HUNTERS POINT	 	Project Number	milker	3670-003		T	Z Z .					40,471	ONSITE - NWT	Section	ion	
Sampler Name Rol Le		Airbill Number	unber	¥ ¥		Г						13.	ABORATORY ID			
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	949-756-7592	7592	Т	u to to									A.
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	- - < -	_						COMMENTS	LOCATION ·	DEPTH	ò
03707-S0017-F001-01	11/19/2010	11/19/2010 0730	-		တ	<u> </u>			_							
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Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE, CONDITION IN ON RECEIPT (NON LABORATIONY)	(LABORATORY)	
Сотрину	Time	Сотрапу		. Commenter	Pacere



Chain-of-Custody Record

TE TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 01721

Project Name		PO Number	2			r	ŀ	ŀ	-		Ī	ŀ		D.			
Radiological Building S	urvey			ΝA		_			_			_	<u>3</u> _	LABORATORY NAME	Deciont I.		
Project Location HUNTERS POINT	Ā	Project Number	umber	3670-003	_								-	ONSITE - NWT	Section	ormatic ion	<u> </u>
Sumpler Name 1901 Pe	۔ م	Airbill Number	miber	A/N		Τ	4 S						13	ABORATORY ID			
Project Chemist LISA BIENKOWSKI	/SKI	Project Cl	Project Chemist Phone	949-756-7592	7592	T	a 50 C				· ·						
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE		-	╁			†	†-	<u> </u>	COMMENTS	LOCATION	DEPTH	<u> 0</u> 0
03707-S0017-F013-01	11/19/2010	0830	-		S	 	[<u>S</u>	<u>∑</u>			1	†	+-			START END	
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Chain-of-Custody Record

1230 Columbia St, Suite 750 TETRATECH EC, INC.

San Diego, CA 92101

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TETRA--CH EC, INC.
1230 Columbia St, Suite 750
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Chain-of-Custody Record

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Chain-of-Custody Record

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Page 1 of 1

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The TECH EC, INC. 1230 Columbia St. Suite 750 San Diego, CA 92101

Chain-of-Custody Record

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TENTECHEC, INC.
1230 Columbia St. Suite 750
San Diego, CA 92101

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TET FCH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Chain-of-Custody Record

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1230 Columbia St, Suite 750
San Diego, CA 92101

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Chain-of-Custody Record

1230 Columbia St, Suite 750

San Diego, CA 92101

TETRA TECH EC, INC.

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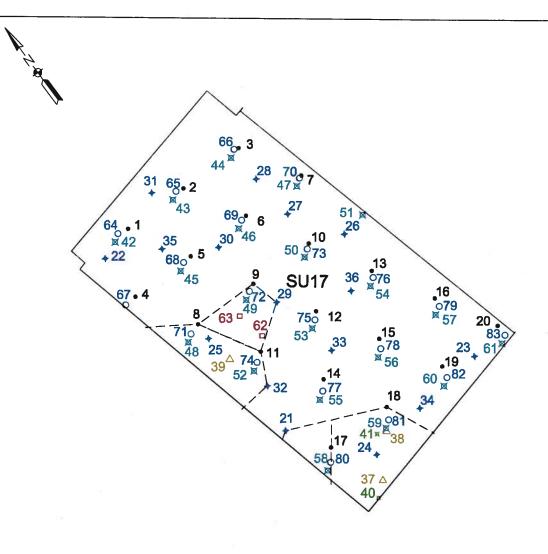
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TETRATECH EC, INC. 1130 Columbia St, Suite 750 San Diegn, CA 92101

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HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 17



TETRA TECH EC, INC

1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Report Date: November 19, 2010	EMAC - CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Scrap Yard, UC3, and Work Areas #16, #21 and #22. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 171 cpm for the FIDLER and 8,010 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 20. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 174 cpm for the FIDLER and 7,923 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 21. A total of 40 gamma static measurements were logged. The maximum gamma static measurements logged were 100 cpm for the FIDLER and 7,808 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team issued drawings to identify locations for biased sample collection within Class 1 Survey Units 11 through 17 and 21.

Scrap Yard

• Following the receipt of analytical results from Survey Units 1, 2 and 3, the staged asphalt debris from Grids 2, 6, 8, 10, 12 and 14 were transferred to the recycling stockpile.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Soil compaction was performed by the HPS Team in those trench survey units with backfill activity in preparation for upcoming heavy rains.
- The HPS Team issued an updated Parcel E/UC1/UC3 Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval



Report Date: November 30, 2010	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed Class 1 survey activities in Survey Unit 1. A total of 18 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 83 cpm for the FIDLER and 7,726 cpm. In addition, 9 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 6. A total of 10 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 91 cpm for the FIDLER and 7,608 cpm. In addition, 5 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 9. A total of 14 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 95 cpm for the FIDLER and 8,746 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 10. A total of 20 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 190 cpm for the FIDLER and 8,419 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 11. A total of 24 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 158 cpm for the FIDLER and 8,201 cpm. In addition, 12 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

• The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of 32 biased gamma static measurements were logged. The maximum biased gamma static measurements logged were 220 cpm for the FIDLER and 9,743 cpm. In addition, 16 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Backfilling activities were initiated for Trench Unit No. 183 by the HPS Team.
- The HPS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 187 along with a request for concurrence to backfill.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans approval



Report Date: January 17, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, UC3 and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 90 cubic yards of soil from Survey Units 15, 16 and 17 and placed the material in LLRW bins BKRU025553G13, BKRU026385G14, GFLU001013G8, GFLU001059G15, GFLU001127G15, and GFLU001199G9 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of 18 post-remediation gamma statics were logged. The maximum gamma static measurements logged were 73 cpm for the FIDLER and 7,830 cpm. In addition, nine post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of six post-remediation gamma statics were logged. The maximum gamma static measurements logged were 218 cpm for the FIDLER and 9,088 cpm. In addition, three post-remediation soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- Compaction testing was continued on recently backfilled areas of Trench Units No. 184 and 187. Based on the compaction testing results, backfill activities were continued for both trench survey units.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: February 15, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, the Scrap Yard, Parcel UC3, and Work Areas #16, #20 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team remediated approximately 60 cubic yards of soil from Survey Units 5, 9, and 14 and placed the material in LLRW bins BKRU025603G15, GFLU001039G16, GFLU001139G8 and GFLU001233G5 for disposal.
- The HPS Team performed Class 1 survey activities in Survey Unit 16. A total of six post-remediation gamma static measurements were logged. The maximum gamma static measurements logged were 56 cpm (FIDLER) and 4,468 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team performed Class 1 survey activities in Survey Unit 17. A total of four characterization gamma static measurements were logged. The maximum gamma static measurements logged were 208 cpm (FIDLER) and 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Units 3, 5, 7, 9, 13, 14, 15, 20, and 21. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the biased "pothole" samples collected from Survey Unit 4. No activity above the release criteria was identified.
- The HPS Team provided the RASO with the off-site strontium analytical results for the post-remediation samples collected from Survey Unit 16. The laboratory analytical results identified ⁹⁰Sr activity above the release criteria at Sample Point 33 (18.5 pCi/g).
- The HPS Team provided the RASO with the on-site and off-site analytical results for the post-remediation samples collected from Survey Unit 17. The analytical results

- identified the presence of 90 Sr activity above the release criteria at Sample Point 37 (15.1 pCi/g).
- Staged asphalt debris excavated from Survey Units 10, 11 and 18 was transferred to the off-site recycling stockpiles near Building 411.
- The HPS Team issued record drawings to identify locations for post-remediation sample collection in Survey Unit 13.

Scrap Yard

 Staged asphalt debris from Survey Unit 6 was transferred to the recycling stockpiles near Building 411.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

- The HPS Team continued post-paving asphalt cleaning activities and continued preparations for road striping and traffic sign installation.
- A variety of housekeeping activities were performed throughout Parcel E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: March 8, 2011 EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 81 cpm (FIDLER) and 8,136 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 202 cpm (FIDLER) and 7,675 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team provided the RASO with on-site analytical results for the post-remediation samples collected from Survey Unit 21. Because no activity above the release criteria was identified, systematic sample collection will be performed.
- The HPS Team issued drawings to identify systematic sample collection locations in Survey Unit 21.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: May 6, 2011	EMAC – CTO 03
	EMAC = C10 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area, Parcel UC3, and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- Approximately 7.5 cubic yards of soil was remediated from Survey Units 16 and 17 by the HPS Team and placed in LLRW bins BKRU012774G6, BKRU026398G13, and GFLU001221G8 for off-site disposal.
- The HPS Team logged a total of four post-remediation gamma static measurements in Survey Unit 16. The maximum measurements logged were 83 cpm (FIDLER) and 5,499 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged four post-remediation gamma static measurements in Survey Unit 17. The maximum measurements logged were 209 cpm (FIDLER) and 8,228 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team logged 42 investigative gamma static measurements in Survey Unit 19. The maximum measurements logged were 184 cpm (FIDLER) and 9,731 cpm. In addition, 21 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action



Report Date: June 8, 2011 EMAC – CTO 03

Overview

The HPNS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPNS Team performed survey activities in Survey Unit 9. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 88 cpm (FIDLER) and 6,758 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data
- The HPNS Team performed survey activities in Survey Unit 17. A total of 40 systematic gamma static measurements were logged. The maximum measurements logged were 180 cpm (FIDLER) and 6,993 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPNS Team including street sweeping.

Issues/Items Pending Action

Miles	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID.	Collected	Technician
707	17	1	Systematic	03707-S0017-F001-01	19-Nov-10	Jeff Rolfe
707	17	2	Systematic	03707-S0017-F002-01	19-Nov-10	Jeff Rolfe
707	17	3	Systematic	03707-S0017-F003-01	19-Nov-10	Jeff Rolfe
707	17	4	Systematic	03707-S0017-F004-01	19-Nov-10	Jeff Rolfe
707	17	5	Systematic	03707-S0017-F005-01	19-Nov-10	Jeff Rolfe
707	17	6	Systematic	03707-S0017-F006-01	19-Nov-10	Jeff Rolfe
707	17	7	Systematic	03707-S0017-F007-01	19-Nov-10	Jeff Rolfe
707	17	8	Systematic	03707-S0017-F008-01	19-Nov-10	Jeff Rolfe
707	17	9	Systematic	03707-S0017-F009-01	19-Nov-10	Jeff Rolfe
707	17	10	Systematic	03707-S0017-F010-01	19-Nov-10	Jeff Rolfe
707	17	11	Systematic	03707-S0017-F011-01	19-Nov-10	Jeff Rolfe
707	17	12	Systematic	03707-S0017-F012-01	19-Nov-10	Jeff Rolfe
707	17	13	Systematic	03707-S0017-F013-01	19-Nov-10	Jeff Rolfe
707	17	14	Systematic	03707-S0017-F014-01	19-Nov-10	Jeff Rolfe
707	17	15	Systematic	03707-S0017-F015-01	19-Nov-10	Jeff Rolfe
707	17	16	Systematic	03707-S0017-F016-01	19-Nov-10	Jeff Rolfe
707	17	17	Systematic	03707-S0017-F017-01	19-Nov-10	Jeff Rolfe
707	17	18	Systematic	03707-S0017-F018-01	19-Nov-10	Jeff Rolfe
707	17	19	Systematic	03707-S0017-F019-01	19-Nov-10	Jeff Rolfe
707	17 17	20	Systematic	03707-S0017-F020-01	19-Nov-10	Jeff Rolfe
707 707		21	Biased	03707-S0017-F021-01	30-Nov-10	Jeff Rolfe
707	17 17	22	Biased	03707-S0017-F022-01	30-Nov-10	Jeff Rolfe
707	17	24	Biased	03707-S0017-F023-01	30-Nov-10	Jeff Rolfe
707	17	25	Biased	03707-S0017-F024-01	30-Nov-10	Jeff Rolfe
707	17	26	Biased Biased	03707-S0017-F025-01 03707-S0017-F026-01	30-Nov-10 30-Nov-10	Jeff Rolfe Jeff Rolfe
707	17	27	Biased	03707-S0017-F020-01	30-Nov-10	Jeff Rolfe
707	17	28	Biased	03707-S0017-F028-01	30-Nov-10	Jeff Rolfe
707	17	29	Biased	03707-S0017-F029-01	30-Nov-10	Jeff Rolfe
707	17	30	Biased	03707-S0017-F030-01	30-Nov-10	Jeff Rolfe
707	17	31	Biased	03707-S0017-F031-01	30-Nov-10	Jeff Rolfe
707	17	32	Biased	03707-S0017-F032-01	30-Nov-10	Jeff Rolfe
707	17	33	Biased	03707-S0017-F033-01	30-Nov-10	Jeff Rolfe
707	17	34	Biased	03707-S0017-F034-01	30-Nov-10	Jeff Rolfe
707	17	35	Biased	03707-S0017-F035-01	30-Nov-10	Jeff Rolfe
707	17	36	Biased	03707-S0017-F036-01	30-Nov-10	Jeff Rolfe
707	17	37	Post-Remediation	03707-S0017-F037-01	17-Jan-11	Rick Zahensky
707	17	38	Post-Remediation	03707-S0017-F038-01	17-Jan-11	Rick Zahensky
707	17	39	Post-Remediation	03707-S0017-F039-01	17-Jan-11	Rick Zahensky
707	17	40	Post-Remediation	03707-S0017-F040-01	15-Feb-11	Rick Zahensky
707	17	41	Post-Remediation	03707-S0017-F041-01	15-Feb-11	Rick Zahensky
707	17	42	Systematic	03707-S0017-F042-01	08-Mar-11	Jeff Rolfe
707	17	43	Systematic	03707-S0017-F043-01	08-Mar-11	Jeff Rolfe
707	17	44	Systematic	03707-S0017-F044-01	08-Mar-11	Jeff Rolfe
707	17	45	Systematic	03707-S0017-F045-01	08-Mar-11	Jeff Rolfe
707	17	46	Systematic	03707-S0017-F046-01	08-Mar-11	Jeff Rolfe
707	17	47	Systematic	03707-S0017-F047-01	08-Mar-11	Jeff Rolfe
707	17	48	Systematic	03707-S0017-F048-01	08-Mar-11	Jeff Rolfe
707	17	49	Systematic	03707-S0017-F049-01	08-Mar-11	Jeff Rolfe
707	17 17	50 51	Systematic Systematic	03707-S0017-F050-01	08-Mar-11	Jeff Rolfe
707 707	17	52	Systematic Systematic	03707-S0017-F051-01	08-Mar-11	Jeff Rolfe
707	17	53	Systematic Systematic	03707-S0017-F052-01	08-Mar-11	Jeff Rolfe
101	17			03707-S0017-F053-01	08-Mar-11	Jeff Rolfe

	On-S	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
23.408	1.449	0.016344	0.81238	0.88375
15.013	-0.063562	0.014311	0.77532	0.71345
16.6	0.77864	-0.0042353	0.73537	0.52804
12.573	0.10661	0.0037937	0.59786	0.64628
23.6	0.61444	0.02119	0.79473	0.70744
16.258	0.99447	0.024694	0.69371	0.61748
12.411	-0.21347	0.0018224	0.7596	0.51395
23.754	0.75219	0.076954	0.56785	0.56888
21.318	0.4623	0.0072203	0.894	0.92174
23.893	0.26135	0.024491	0.8075	0.80574
16.34	0.75956	0.063639	0.47293	0.71822
16.649	0.89335	0.032931	0.69536	0.57031
16.71	0.66703	0.00981	0.76514	0.75417
16.965	0.89048	0.0022201	0.92399	0.69589
16.882	0.44015	0.027384	0.63904	0.53297
9.8905	0.50128	0.034723	0.45005	0.29187
16.376	0.53304	0.42415	0.49928	0.49966
19.046	0.66589	0.087692	0.58707	0.61673
14.49	0.73091	0.031521	0.54935	0.4189
19.367	0.94077	-0.004309	0.54169	0.65881
17.625	0.80219	0.056036	0.73924	0.66759
23.545	0.93095	0.10777	0.757	0.63898
19.967	0.5066	0.012118	0.86184	0.8116
16.33	0.77939	0.073568	0.61802	0.60389
21.576	0.022045	11.991	0.73385	0.73317
19.768	0.95295	0.013088	0.76181	0.73299
19.827	0.66857	0.021724	0.91968	0.76258
20.182	0.68807	0.023769	0.66371	0.6091
22.964	0.72452	0.023168	0.85363	0.85382
25.338	1.0994	-0.0054638	0.96664	0.75926
21.476	1.0009	0.015022	0.94526	0.81479
21.359	0.43716	-0.0019141	0.84428	0.8361
22.48	0.88349	0.076408	0.77681	0.83523
20.054	0.9386	0.0069849	0.54052	0.72789
22.53	1.0846	-0.007164	0.75477	0.58077
20.024	0.5961	0.023275	0.79847	0.75232
12.62	0.6966	0.8955	0.5143	0.5402
15.59	0.4255	-0.004596	0.2339	0.1956
9.231	1.165	-0.01036	0.7094	0.7161
10.88	1.063	0.007966	0.3057	0.2995
12.31	0.9082	0.01596	0.1728	0.3573
4.737	0.06751	-0.003952	0.09169	0.2002
11.87	0.1655	-0.001459	0.4816	0.3289
10.14	0.5431	-0.00883	0.5098	0.4341
10.45	0.8509	0.008339	0.4444	0.4847
11.98	0.5445	0.002762	0.4609	0.5379
11.85	0.5051	0.03658	0.509	0.4939
12.32	0.713	-0.003733	0.4716	0.3464
11.6	0.7492	-0.0007392	0.4024	0.5283
12.19	0.9205	0.006227	0.4796	0.3986
8.848	0.7143	-0.003357	0.4896	0.4137
13.25	0.6659	0	0.454	0.507
11.8	0.6153	0	0.4836	0.4295

K-40	Ra-226	Cs-137	Bi-214	Pb-214
5.16	0.297	-0.0115	0.297	0.268
5.16 12.1	0.297 0.676	-0.0115 0.00518	0.297 0.676	0.268 0.534
12.1	0.676	0.00518	0.676	0.534
12.1 11.7	0.676 0.663	0.00518 -0.0209	0.676 0.663	0.534 0.517
12.1 11.7 10.4	0.676 0.663 0.577	0.00518 -0.0209 0.00982	0.676 0.663 0.577	0.534 0.517 0.591
12.1 11.7 10.4 9.58 11.2 11.7	0.676 0.663 0.577 0.367 0.517 0.47	0.00518 -0.0209 0.00982 0.0019	0.676 0.663 0.577 0.367	0.534 0.517 0.591 0.569
12.1 11.7 10.4 9.58 11.2 11.7	0.676 0.663 0.577 0.367 0.517 0.47 0.5	0.00518 -0.0209 0.00982 0.0019	0.676 0.663 0.577 0.367 0.517 0.47 0.5	0.534 0.517 0.591 0.569 0.712
12.1 11.7 10.4 9.58 11.2 11.7 12 9.82	0.676 0.663 0.577 0.367 0.517 0.47 0.5 0.546	0.00518 -0.0209 0.00982 0.0019 0 -0.000246 0.000389 -0.019	0.676 0.663 0.577 0.367 0.517 0.47	0.534 0.517 0.591 0.569 0.712 0.646 0.685 0.59
12.1 11.7 10.4 9.58 11.2 11.7 12 9.82 10.8	0.676 0.663 0.577 0.367 0.517 0.47 0.5 0.546 0.603	0.00518 -0.0209 0.00982 0.0019 0 -0.000246 0.000389	0.676 0.663 0.577 0.367 0.517 0.47 0.5 0.546 0.603	0.534 0.517 0.591 0.569 0.712 0.646 0.685 0.59
12.1 11.7 10.4 9.58 11.2 11.7 12 9.82	0.676 0.663 0.577 0.367 0.517 0.47 0.5 0.546	0.00518 -0.0209 0.00982 0.0019 0 -0.000246 0.000389 -0.019	0.676 0.663 0.577 0.367 0.517 0.47 0.5 0.546	0.534 0.517 0.591 0.569 0.712 0.646 0.685 0.59

K-40	
11.79	
11.51	
10.85	
11.71	1
10.66	
9.83	

5.737

5.904

6.726

5.787

4.51

5.955

5.449

0.3798

0.463

0.504

0.4051

0.7243

0.5374

0.6041

COC Radiologica

Technician

Jeff Rolfe

Jeff Rolfe

Jeff Rolfe

Jeff Rolfe

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Rick Zahensky

Rick Zahensky

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Date

Collected

08-Mar-11

K-40	Ra-226	Cs-137	Bi-214	Pb-214
11.79	0.6081	-0.006221	0.4122	0.4439
11.51	0.5153	0.00992	0.4029	0.2954
10.85	0.777	-0.01197	0.4008	0.4229
11.71	0.5384	0	0.4535	0.4568
10.66	1.099	0.01097	0.2278	0.3329
9.83	0.2524	-0.00007019	0.3211	0.3636
10.28	0.4147	0	0.354	0.3775
8.807	0.4218	-0.003131	0.3824	0.3614
4.862	0.436	-0.005611	0.1403	0.21
6.23 0.5965		0	0.2959	0.1526
		2 222 422		

On-Site Laboratory (pCi/g)

			0.002	
4.862	0.436	-0.005611	0.1403	0.21
6.23	0.5965	0	0.2959	0.1526
5.821	0.1404	0.003488	0.2556	0.1834
4.624	0.3343	0	0.1111	0.2471
5.648	0.3461	-0.003752	0.2735	0.2699
5.595	0.2589	-0.002401	0.19	0.1767
4.363	0.0645	0.00159	0.1275	0.2811
5.183	0.6115	0	0.2073	0.2913
5.676	0.577	-0.01196	0.2672	0.1481
5.811	0.465	0	0.2357	0.2275
4.118	0.316	0	0.2288	0.2564
6.012	0.7396	0	0.1016	0.1509
4.893	0.02696	0	0.1565	0.2241

-0.008098

-0.007242

-0.00686

0.0004447

-0.003767

0.001496

-0.002971

0.1745

0.08165

0.1484

0.1673

0.239

0.1092

0.2936

0.1254

0.1895

0.1773

0.1405

0.1895

0.2566

0.1314

K-90	Ka-226	Cs-13/	BI-214	PD-214
7.81	0.599	-0.017	0.599	0.564
10	0.528	0.0122	0.528	0.65
10.4	0.426	-0.000619	0.426	0.482
9.88	0.514	0.0388	0.514	0.444
9.3	0.52	0	0.52	0.551
9.27	0.462	0.00335	0.462	0.593
10.8	0.414	-0.044	0.414	0.419
10.3	0.468	-0.0173	0.468	0.601
5 00 I	0.044	0.000440	2044	0.07
5.22	0.341	-0.000143	0.341	0.27
5.46	0.285	-0.0193	0.285	0.232
5.14	0.32	-0.000153	0.32	0.264
5.06	0.347	0.00617	0.347	0.17
4.66	0.38	0.000492	0.38	0.381
4.38	0.513	-0.0272	0.513	0.391
4.55	0.295	-0.0114	0.295	0.391
5.36	0.32	0.00414	0.32	0.212
3.69	0.343	0.00454	0.343	0.354
4.35	0.389	0.0188	0.389	0.374
3.45	0.231	-0.0259	0.231	0.383
6.31	0.327	0.00646	0.327	0.372
5.17	0.291	0	0.291	0.321
3.69	0.291	0.00166	0.291	0.305
5.13	0.292	0.0109	0.292	0.345
5.55	0.348	-0.0187	0.348	0.433
7.61	0.328	0.0109	0.328	0.392
5.16	0.328	-0.00678	0.328	0.428
4.04	0.395	0	0.395	0.122
7.01	0.349	-0.00733	0.349	0.393

Off-Site Laboratory (pCi/g)

Bi-214

03707-S0017-F083-01 08-Jun-11 Jeff Rolfe Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.485; Pb-214 ≥ 1.485 (pCi/g)

Sample

Type

Systematic

Systematic

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Sr90 Remediation

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03707-S0017-F056-01

03707-S0017-F054-01 08-Mar-11

03707-S0017-F058-01 08-Mar-11

03707-S0017-F059-01 08-Mar-11

03707-S0017-F060-01 | 08-Mar-11

03707-S0017-F062-01 | 06-May-11

03707-S0017-F063-01 06-May-11

03707-S0017-F064-01 08-Jun-11

03707-S0017-F065-01 08-Jun-11

03707-S0017-F066-01 08-Jun-11

03707-S0017-F067-01 08-Jun-11

03707-S0017-F068-01 08-Jun-11

03707-S0017-F069-01 08-Jun-11

03707-S0017-F070-01 08-Jun-11

03707-S0017-F071-01 08-Jun-i1

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03707-S0017-F076-01 08-Jun-11

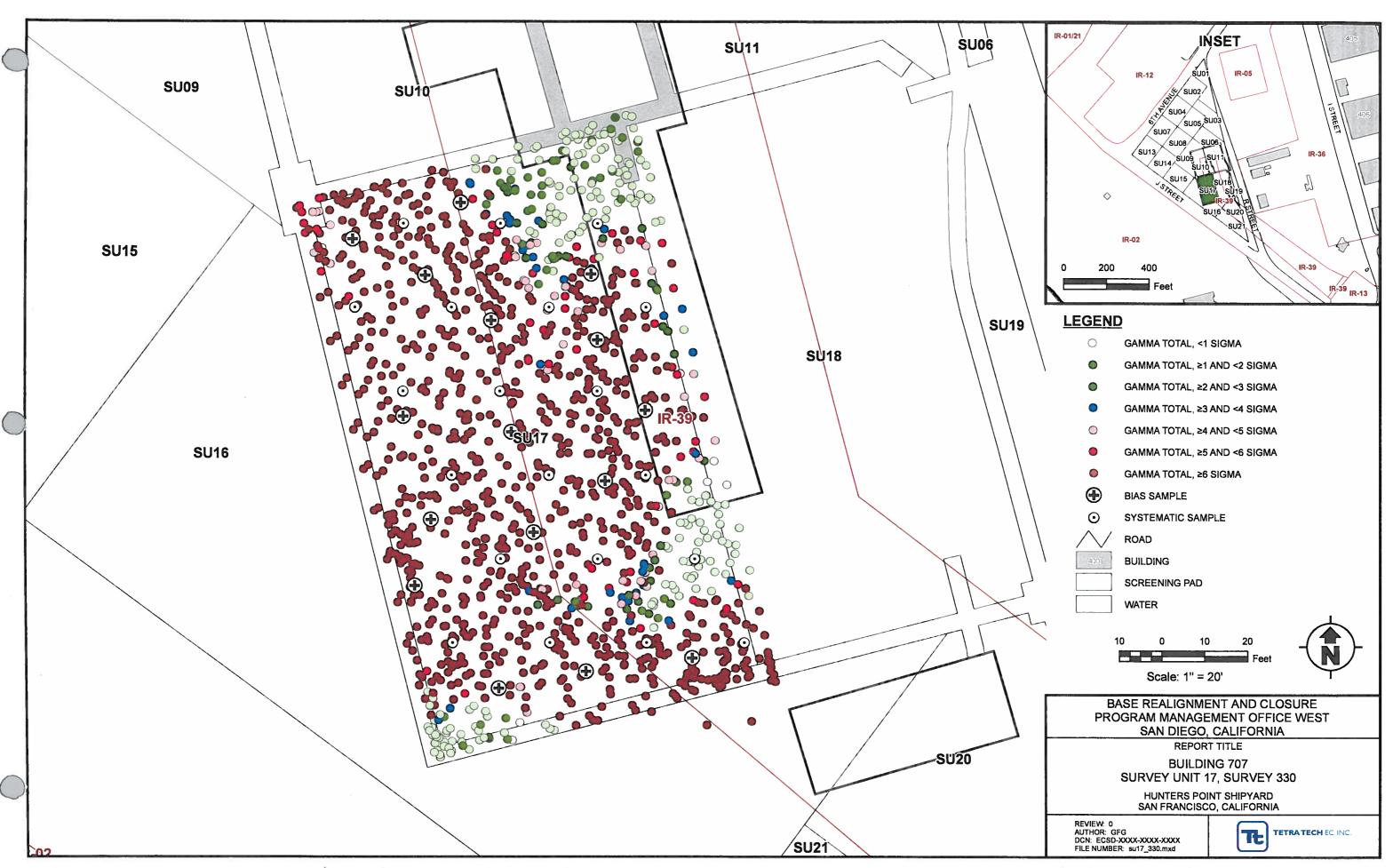
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03707-S0017-F080-01 08-Jun-11

03707-S0017-F082-01 08-Jun-11



HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 22



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101

TEL: (619) 234-8690 FAX: (619) 234-8591

SCALE 1:40



Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/22/2011 10:25	5770	5817	-47	479-BKGDS1A	7378	
2	4/22/2011 10:26	6080	5817	263	479-BKGDS1A	7378	
3	4/22/2011 10:28	6654	5817	837	479-BKGDS1A	7378	
4	4/22/2011 10:29	4686	5817	-1131	479-BKGDS1A	7378	
5	4/22/2011 10:31	4802	5817	-1015	479-BKGDS1A	7378	
6	4/22/2011 10:36	4485	5817	-1332	479-BKGDS1A	7378	
7	4/22/2011 10:38	4635	5817	-1182	479-BKGDS1A	7378	
8	4/22/2011 10:39	4827	5817	-990	479-BKGDS1A	7378	
9	4/22/2011 10:40	4797	5817	-1020	479-BKGDS1A	7378	
10	4/22/2011 10:41	5127	5817	-690	479-BKGDS1A	7378	
11	4/22/2011 10:45	6037	5817	220	479-BKGDS1A	7378	
12	4/22/2011 10:47	6508	5817	691	479-BKGDS1A	7378	
13	4/22/2011 10:56	5163	5817	-654	479-BKGDS1A	7378	
14	4/22/2011 11:23	5147	5817	-670	479-BKGDS1A	7378	
15	4/22/2011 11:25	6172	5817	355	479-BKGDS1A	7378	
16	4/22/2011 11:26	5217	5817	-600	479-BKGDS1A	7378	
17	4/22/2011 11:27	5497	5817	-320	479-BKGDS1A	7378	
18	4/22/2011 11:28	5468	5817	-349	479-BKGDS1A	7378	
19	4/22/2011 11:29	4710	5817	-1107	479-BKGDS1A	7378	
20	4/22/2011 11:30	5530	5817	-287	479-BKGDS1A	7378	
21	4/22/2011 11:32	5354	5817	-463	479-BKGDS1A	7378	
22	4/22/2011 11:33	5287	5817	-530	479-BKGDS1A	7378	
23	4/22/2011 11:34	4827	5817	-990	479-BKGDS1A	7378	
24	4/22/2011 11:35	4112	5817	-1705	479-BKGDS1A	7378	2000
25	4/22/2011 11:36	4909	5817	-908	479-BKGDS1A	7378	
26	4/22/2011 11:38	5437	5817	-380	479-BKGDS1A	7378	
27	4/22/2011 11:39	4880	5817	-937	479-BKGDS1A	7378	
28	4/22/2011 11:40	4867	5817	-950	479-BKGDS1A	7378	
29	4/22/2011 11:42	4802	5817	-1015	479-BKGDS1A	7378	
30	4/22/2011 11:43	4702	5817	-1115	479-BKGDS1A	7378	
31	4/22/2011 11:44	4768	5817	-1049	479-BKGDS1A	7378	
32	5/1/2012 14:16	4440	5886	-1446	621-BKGDS1A	7001	



Area: 509.16 m² **Count Time: 1 min** Site Area: 707 Survey Unit: 22 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
33	5/1/2012 14:28	5034	5886	-852	621-BKGDS1A	7001		
34	5/2/2012 10:02	4099	5886	-1787	621-BKGDS1A	7001		
35	5/2/2012 10:06	5860	5886	-26	621-BKGDS1A	7001		
36	5/14/2012 13:09	5221	5886	-665	621-BKGDS1A	7001		
37	5/14/2012 13:10	4683	5886	-1203	621-BKGDS1A	7001		
38	5/14/2012 13:11	3878	5886	-2008	621-BKGDS1A	7001		
39	5/14/2012 13:12	4449	5886	-1437	621-BKGDS1A	7001		
40	6/29/2012 13:34	3742	5845	-2103	622-BKGDS1A	7004		
41	7/2/2012 10:35	4167	5845	-1678	622-BKGDS1A	7004		
42	7/2/2012 10:37	4089	5845	-1756	622-BKGDS1A	7004		
43	7/2/2012 10:38	3963	5845	-1882	622-BKGDS1A	7004		İ
44	8/8/2012 7:32	6418	5845	573	622-BKGDS1A	7004		
45	7/31/2012 9:25	3881	5845	-1964	622-BKGDS1A	7004		
- 46	7/31/2012 9:27	3621	5845	-2224	622-BKGDS1A	7004	2::03:	ĺ
47	7/31/2012 9:28	4131	5845	-1714	622-BKGDS1A	7004		İ
48	7/31/2012 9:30	4344	5845	-1501	622-BKGDS1A	7004		ĺ
- 49	7/31/2012 9:31	4202	5845	-1643	622-BKGDS1A	7004		İ
50	7/31/2012 9:32	4400	5845	-1445	622-BKGDS1A	7004		ĺ
51	7/31/2012 9:34	3367	5845	-2478	622-BKGDS1A	7004		١
52	7/31/2012 9:35	4377	5845	-1468	622-BKGDS1A	7004		1
53	7/31/2012 9:36	3276	5845	-2569	622-BKGDS1A	7004		1
54	7/31/2012 9:37	4784	5845	-1061	622-BKGDS1A	7004		1
55	7/31/2012 9:39	4928	5845	-917	622-BKGDS1A	7004		1
56	7/31/2012 9:40	4412	5845	-1433	622-BKGD\$1A	7004		1
57	7/31/2012 9:41	4554	5845	-1291	622-BKGDS1A	7004		1
58	7/31/2012 9:42	5563	5845	-282	622-BKGDS1A	7004		1
59	7/31/2012 9:44	5143	5845	-702	622-BKGD51A	7004		1
60	7/31/2012 9:45	4309	5845	-1536	622-BKGDS1A	7004		1
61	7/31/2012 9:46	4975	5845	-870	622-BKGDS1A	7004		1
62	7/31/2012 9:48	4924	5845	-921	622-BKGDS1A	7004		1
63	7/31/2012 9:49	4765	5845	-1080	622-BKGDS1A	7004		1
64	8/2/2012 8:06	3978	5845	-1867	622-BKGDS1A	7004		i



Survey Unit: 22 Site Area: 707 Class: 1 Area: 509.16 m² Count Time: 1 min

		-		107.00.107		10-5		200
	Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
	65	8/2/2012 8:07	4091	5845	-1754	622-BKGDS1A	7004	
	66							
ļ		8/7/2012 11:14	4416	5845	-1429	622-BKGDS1A	7004	
1	67	8/7/2012 11:21	4525	5845	-1320	622-BKGDS1A	7004	
	68	8/7/2012 11:22	4222	5845	-1623	622-BKGDS1A	7004	
ļ	69	8/7/2012 11:23	4448	5845	-1397	622-BKGDS1A	7004	
	70	8/7/2012 11:25	5270	5845	-575	622-BKGDS1A	7004	
	71	8/7/2012 11:26	4705	5845	-1140	622-BKGDS1A	7004	
	72	8/7/2012 11:27	5690	5845	-155	622-BKGDS1A	7004	
	73	8/7/2012 11:28	4474	5845	-1371	622-BKGDS1A	7004	
Ī	74	8/7/2012 11:29	4933	5845	-912	622-BKGDS1A	7004	
	75	8/7/2012 11:30	5256	5845	-589	622-BKGDS1A	7004	
Ì	76	8/15/2012 11:17	3784	5845	-2061	622-BKGDS1A	7004	
	77	8/15/2012 11:18	4223	5845	-1622	622-BKGDS1A	7004	
Ì	78	8/15/2012 11:20	4004	5845	-1841	622-BKGDS1A	7004	
Ì	79	8/15/2012 11:21	5090	5845	-755	622-BKGDS1A	7004	
-	80	8/15/2012 11:23	4408	5845	-1437	622-BKGDS1A	7004	
	81	8/23/2012 9:29	6680	5845	835	622-BKGDS1A	7004	
1	82	8/23/2012 9:32	4494	5845	-1351	622-BKGDS1A	7004	
	83	8/23/2012 9:34	4497	5845	-1348	622-BKGDS1A	7004	
	84	8/23/2012 9:35	4127	5845	-1718	622-BKGDS1A	7004	
	85	8/23/2012 9:37	4646	5845	-1199	622-BKGDS1A	7004	
	86	8/23/2012 9:38	4693	5845	-1152	622-BKGDS1A	7004	
1	87	8/23/2012 9:40	4641	5845	-1204	622-BKGDS1A	7004	
	88	8/23/2012 9:41	4105	5845	-1740	622-BKGDS1A	7004	
	89	8/23/2012 9:42	4520	5845	-1325	622-BKGDS1A	7004	
	90	8/23/2012 9:45	4597	5845	-1248	622-BKGDS1A	7004	
	91	8/23/2012 9:46	4174	5845	-1671	622-BKGDS1A	7004	
	92	8/23/2012 9:47	4355	5845	-1490	622-BKGDS1A	7004	
	93	8/23/2012 9:48	4673	5845	-1172	622-BKGDS1A	7004	
	94	8/23/2012 9:50	5697	5845	-148	622-BKGDS1A	7004	
	95	8/23/2012 9:51	5372	5845	-473	622-BKGDS1A	7004	
	96	8/23/2012 9:52	4947	5845	-898	622-BKGDS1A	7004	



Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	8/23/2012 9:54	4776	5845	-1069	622-BKGDS1A	7004	
98	8/23/2012 9:55	3712	5845	-2133	622-BKGDS1A	7004	
99	8/23/2012 9:57	5125	5845	-720	622-BKGDS1A	7004	
100	8/23/2012 9:59	4782	5845	-1063	622-BKGDS1A	7004	

Net Gamma cpm

Min: -2569

Summary

Avg: -1066

Max: 837

St Dev: 693

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to Instrument reference area background identification number Gamma measurements $> 3\sigma$ Investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 479

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430

Probe Serial #: 012176

Calibration Due Date: 5/12/2011

Reference Area Background Identification #: 479-BKGDS1A Count Time (minutes): 1.00

	10,100	
Rdg#	Date and Time	Gross Gamma CPM
1	07/29/2010 10:01	5432
2	07/29/2010 10:05	6064
3	07/29/2010 10:06	5667
4	07/29/2010 10:07	5647
5	07/29/2010 10:08	6956
6	07/29/2010 10:09	6120
7	07/29/2010 10:11	5199
8	07/29/2010 10:12	5083
9	07/29/2010 10:14	5880
10	07/29/2010 10:15	5567
11	07/29/2010 10:17	6268
12	07/29/2010 10:18	5786
13	07/29/2010 10:19	5405
14	07/29/2010 10:21	5984
15	07/29/2010 10:22	7018
16	07/29/2010 10:23	5521
17	07/29/2010 10:24	5872
18	07/29/2010 10:26	5464
19	07/29/2010 10:27	6157
20	07/29/2010 10:28	5241

Gamma Mean Background (cpm):

5817

Standard Deviation:

520

Gamma 3_o Investigation

7378



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shippard San Francisco, CA Rackground Benert **Background Report**

Area: 509.16 m² Class: 1 Survey Unit: 22 Site Area: 707

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 621

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 98613

Probe Serial #: 192584

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 621-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/28/2011 13:11	6579
2	10/28/2011 13:12	5806
3	10/28/2011 13:13	5810
4	10/28/2011 13:15	5708
5	10/28/2011 13:16	5928
6	10/28/2011 13:17	6468
7	10/28/2011 13:19	6385
8	10/28/2011 13:20	6664
9	10/28/2011 13:21	5974
10	10/28/2011 13:22	5682
11	10/28/2011 13:23	5896
12	10/28/2011 13:24	5890
13	10/28/2011 13:25	5313
14	10/28/2011 13:27	5811
15	10/28/2011 13:28	5835
16	10/28/2011 13:29	5626
17	10/28/2011 13:30	5476
18	10/28/2011 13:31	5758
19	10/28/2011 13:32	5698
20	10/28/2011 13:33	5403

Gamma Mean Background (cpm):

5886

Standard Deviation:

372

Gamma 3σ Investigation

7001



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m²
Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 622

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430

Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm):

5845

Standard Deviation:

386

Gamma 3_o Investigation

7004



TETRATECH EC, INC. Gamma Direct Measurement Report Stan Francisco, CA

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/22/2011 10:04	183	158	25	512-BKGDS1A	387	
2	4/22/2011 10:12	123	158	-35	512-BKGDS1A	387	
3	4/22/2011 10:13	132	158	-26	512-BKGDS1A	387	
4	4/22/2011 10:15	144	158	-14	512-BKGDS1A	387	
5	4/22/2011 10:17	133	158	-25	512-BKGDS1A	387	10,40
6	4/22/2011 10:18	138	158	-20	512-BKGDS1A	387	150 (2)
7	4/22/2011 10:19	123	158	-35	512-BKGDS1A	387	
8	4/22/2011 10:20	111	158	-47	512-BKGDS1A	387	
9	4/22/2011 10:22	121	158	-37	512-BKGDS1A	387	
10	4/22/2011 10:23	124	158	-34	512-BKGDS1A	387	
11	4/22/2011 10:50	120	158	-38	512-BKGDS1A	387	
12	4/22/2011 10:51	134	158	-24	512-BKGDS1A	387	
13	4/22/2011 10:59	133	158	-25	512-BKGDS1A	387	
14	4/22/2011 11:03	125	158	-33	512-BKGDS1A	387	
15	4/22/2011 11:05	134	158	-24	512-BKGDS1A	387	
16	4/22/2011 11:06	150	158	-8	512-BKGDS1A	387	
17	4/22/2011 11:07	154	158	-4	512-BKGDS1A	387	
18	4/22/2011 11:08	131	158	-27	512-BKGDS1A	387	
19	4/22/2011 11:09	103	158	-55	512-BKGDS1A	387	
20	4/22/2011 11:10	125	158	-33	512-BKGDS1A	387	
21	4/22/2011 11:12	122	158	-36	512-BKGDS1A	387	
22	4/22/2011 11:13	130	158	-28	512-BKGDS1A	387	
23	4/22/2011 11:14	131	158	-27	512-BKGDS1A	387	
24	4/22/2011 11:15	107	158	-51	512-BKGDS1A	387	
25	4/22/2011 11:17	110	158	-48	512-BKGDS1A	387	
26	4/22/2011 11:18	116	158	-42	512-BKGDS1A	387	
27	4/22/2011 11:19	114	158	-44	512-BKGDS1A	387	
28	4/22/2011 11:20	132	158	-26	512-BKGDS1A	387	
29	4/22/2011 11:22	102	158	-56	512-BKGDS1A	387	
30	4/22/2011 11:23	102	158	-56	512-BKGDS1A	387	
31	4/22/2011 11:24	109	158	-49	512-BKGDS1A	387	
32	5/1/2012 14:29	165	199	-34	620-BKGDS1A	344	



Area: 509.16 m² **Count Time: 1 min** Site Area: 707 Survey Unit: 22 Class: 1

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

	122		(1)				
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	'5/1/2012 14:31	194	199	-5	620-BKGDS1A	344	
34	5/2/2012 10:05	169	199	-30	620-BKGDS1A	344	
35	5/2/2012 10:09	239	199	40	620-BKGDS1A	344	
36	5/15/2012 8:25	197	199	-2	620-BKGDS1A	344	
37	5/15/2012 8:26	191	199	-8	620-BKGDS1A	344	<u> </u>
38	5/15/2012 8:27	182	199	-17	620-BKGDS1A	344	
39	5/15/2012 8:28	178	199	-21	620-BKGDS1A	344	
40	6/29/2012 13:34	203	199	4	620-BKGDS1A	344	
41	7/2/2012 10:44	201	199	2	620-BKGDS1A	344	
42	7/2/2012 10:46	224	199	25	620-BKGDS1A	344	
43	7/2/2012 10:47	186	199	-13	620-BKGDS1A	344	
44	8/8/2012 7:36	305	199	106	620-BKGDS1A	344	/
45	7/31/2012 9:33	174	199	-25	620-BKGD51A	344	
46	7/31/2012 9:35	173	199	-26	620-BKGDS1A	344	
47	7/31/2012 9:36	155	199	-44	620-BKGDS1A	344	
48	7/31/2012 9:37	198	199	-1	620-BKGDS1A	344	
49	7/31/2012 9:39	201	199	2	620-BKGDS1A	344	
50	7/31/2012 9:40	155	199	-44	620-BKGDS1A	344	
51	7/31/2012 9:41	169	199	-30	620-BKGDS1A	344	
52	7/31/2012 9:42	171	199	-28	620-BKGD51A	344	
53	7/31/2012 9:43	183	199	-16	620-BKGDS1A	344	
54	7/31/2012 9:44	188	199	-11	620-BKGDS1A	344	
55	7/31/2012 9:46	219	199	20	620-BKGDS1A	344	100 77
56	7/31/2012 9:47	194	199	-5	620-BKGDS1A	344	
57	7/31/2012 9:48	171	199	-28	620-BKGDS1A	344	
58	7/31/2012 9:49	240	199	41	620-BKGDS1A	344	
59	7/31/2012 9:50	206	199	7	620-BKGDS1A	344	
60	7/31/2012 9:51	188	199	-11	620-BKGDS1A	344	
61	7/31/2012 9:52	238	199	39	620-BKGDS1A	344	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)
62	7/31/2012 9:54	190	199	-9	620-BKGDS1A	344	
63	7/31/2012 9:55	224	199	25	620-BKGDS1A	344	
64	8/2/2012 8:11	152	199	-47	620-BKGDS1A	344	
	_, _,				de la constantina della constantina della consta		



Site Area: 707 **Survey Unit: 22** Class: 1 Area: 509.16 m² **Count Time: 1 min**

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

				-			
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	8/2/2012 8:13	200	199	1	620-BKGDS1A	344	
66	8/7/2012 14:33	176	199	-23	620-BKGDS1A	344	
67	8/7/2012 14:36	197	199	-2	620-BKGDS1A	344	
68	8/7/2012 14:37	214	199	15	620-BKGDS1A	344	
69	8/7/2012 14:38	162	199	-37	620-BKGDS1A	344	
70	8/7/2012 14:40	231	199	32	620-BKGDS1A	344	
71	8/7/2012 14:41	172	199	-27	620-BKGDS1A	344	
72	8/7/2012 14:42	198	199	-1	620-BKGDS1A	344	
73	8/7/2012 14:43	204	199	5	620-BKGDS1A	344	
74	8/7/2012 14:44	215	199	16	620-BKGDS1A	344	
75	8/7/2012 14:46	220	199	21	620-BKGDS1A	344	
76	8/15/2012 11:19	175	199	-24	620-BKGDS1A	344	
77	8/15/2012 11:20	169	199	-30	620-BKGDS1A	344	
78	8/15/2012 11:22	176	199	-23	620-BKGDS1A	344	
79	8/15/2012 11:23	178	199	-21	620-BKGDS1A	344	
80	8/15/2012 11:25	193	199				
	The first control			-6	620-BKGDS1A	344	
81 82	8/23/2012 9:31	253	199	54	620-BKGDS1A	344	
	8/23/2012 9:35	206	199	7	620-BKGDS1A	344	
83	8/23/2012 9:36	176	199	-23	620-BKGDS1A	344	
84	8/23/2012 9:37	172	199	-27	620-BKGDS1A	344	
85	8/23/2012 9:39	230	199	31	620-BKGDS1A	344	
86	8/23/2012 9:40	205	199	6	620-BKGDS1A	344	
87	8/23/2012 9:42	201	199	2	620-BKGDS1A	344	
88	8/23/2012 9:43	161	199	-38	620-BKGDS1A	344	
89	8/23/2012 9:45	213	199	14	620-BKGDS1A	344	
90	8/23/2012 9:47	222	199	23	620-BKGDS1A	344	
91	8/23/2012 9:48	195	199	-4	620-BKGDS1A	344	
92	8/23/2012 9:49	206	199	7	620-BKGDS1A	344	
93	8/23/2012 9:51	178	199	-21	620-BKGDS1A	344	
94	8/23/2012 9:52	250	199	51	620-BKGDS1A	344	400-00-00-00-00-00-00-00-00-00-00-00-00-
95	8/23/2012 9:53	222	199	23	620-BKGDS1A	344	
96	8/23/2012 9:55	195	199	-4	620-BKGDS1A	344	



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 22 Class: 1 Area: 509.16 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	8/23/2012 9:56	211	199	12	620-BKGDS1A	344	E 75
98	8/23/2012 9:57	165	199	-34	620-BKGDS1A	344	
99	8/23/2012 9:59	204	199	5	620-BKGDS1A	344	
100	8/23/2012 10:01	216	199	17	620-BKGDS1A	344	

Net Gamma cpm

Min: -56

Summary

Avg: -12

Max: 106

St Dev: 28

Readings > 3σ investigation level are highlighted in blue

* Background iD correlates to instrument reference area background identification number Gamma measurements > 3σ investigation level are verified by 2360 beta measurements



TETRATECH EC, INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Roport **Background Report**

Class: 1 Area: 509.16 m² Site Area: 707 Survey Unit: 22

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 512 Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228695 Probe Serial #: 022006AE1

Calibration Due Date: 10/22/2011

Reference Area Background Identification #: 512-BKGDS1A Count Time (minutes): 1.00

_		
Rdg#	Date and Time	Gross Gamma CPM
1	11/02/2010 8:19	162
2	11/02/2010 8:20	147
3	11/02/2010 8:22	160
4	11/02/2010 8:23	151
5	11/02/2010 8:25	138
6	11/02/2010 8:26	134
7	11/02/2010 8:28	127
8	11/02/2010 8:29	141
9	11/02/2010 8:30	152
10	11/02/2010 8:31	150
11	11/02/2010 8:32	120
12	11/02/2010 8:34	158
13	11/02/2010 8:35	122
14	11/02/2010 8:36	478
15	11/02/2010 8:38	141
16	11/02/2010 8:39	133
17	11/02/2010 8:40	147
18	11/02/2010 8:41	128
19	11/02/2010 8:42	138
20	11/02/2010 8:43	132

Gamma Mean Background (cpm): 158

> **Standard Deviation:** 76

Gamma 3_o Investigation 387



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Report **Background Report**

Area: 509.16 m² Class: 1 Site Area: 707 Survey Unit: 22

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620

Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228694

Probe Serial #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGD51A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	168
2	10/13/2011 15:13	176
3	10/13/2011 15:14	169
4	10/13/2011 15:15	178
5	10/13/2011 15:16	162
6	10/13/2011 15:17	168
7	10/13/2011 15:19	198
8	10/13/2011 15:20	190
9	10/13/2011 15:21	169
10	10/13/2011 15:22	282
11	10/13/2011 15:23	192
12	10/13/2011 15:25	230
13	10/13/2011 15:26	196
14	10/13/2011 15:27	165
15	10/13/2011 15:28	291
16	10/13/2011 15:30	147
17	10/13/2011 15:31	166
18	10/13/2011 15:32	168
19	10/13/2011 15:33	290
20	10/13/2011 15:35	284

Gamma Mean Background (cpm):

199

Standard Deviation:

48

Gamma 3_o Investigation

344

Survey Unit: 22 Site Area: 707 Class: 1 Area: 509.16 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 577-BKGDS1

Instrument Serial Number:

109970

Reference Area Background Parcel D-1

Instrument Calibration Due Date: 2/24/2012

Location:

Reference

Exposure Rate

Identification #:

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	4/22/2011	5	
2	4/22/2011	6	
3	4/22/2011	6	
4	4/22/2011	5	
5	4/22/2011	5	
6	4/22/2011	5	
7	4/22/2011	5	
8	4/22/2011	5	
9	4/22/2011	5	Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Salah Sa
10	4/22/2011	5	
11	4/22/2011	6	
12	4/22/2011	6	
13	4/22/2011	5	
14	4/22/2011	5	
15	4/22/2011	6	
16	4/22/2011	5	
17	4/22/2011	5	
18	4/22/2011	5	
19	4/22/2011	5	
20	4/22/2011	5	
21	4/22/2011	5	
22	4/22/2011	5	
23	4/22/2011	5	
24	4/22/2011	5	
25	4/22/2011	5	
26	4/22/2011	5	
27	4/22/2011	5	

TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	4/22/2011	5	
29	4/22/2011	5	
30	4/22/2011	5	
31	4/22/2011	5	SHE IS NOT THE RESERVE OF THE SECOND OF THE

Instrument Model:

Model 19

Reference Area Background

666-BKGDS1

Instrument Serial Number:

91499

Reference Area Background

Parcel D-1 Reference

Instrument Calibration Due Date: 1/

1/15/2013

Exposure Rate

Location:

Identification #:

6

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
32	5/1/2012	5	
33	5/1/2012	5	
34	5/2/2012	5	
35	5/2/2012	6	BU 839
36	5/14/2012	5	
37	5/14/2012	5	
38	5/14/2012	5	
39	5/14/2012	5	
40	6/29/2012	5	
41	7/2/2012	6	
42	7/2/2012	6	
43	7/2/2012	6	

Instrument Model:

Model 19

Reference Area Background

667-BKGDS1

Instrument Serial Number:

107447

Reference Area Background

Parcel D-1
Reference

Instrument Calibration Due Date: 1/1

1/12/2013

Exposure Rate

Location:

Identification #:

6

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
44	8/8/2012	5	
45	7/31/2012	4	
46	7/31/2012	4	
47	7/31/2012	4	



TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
48	7/31/2012	4	
49	7/31/2012	4	
50	7/31/2012	5	
51	7/31/2012	5	
52	7/31/2012	5	
53	7/31/2012	4	
54	7/31/2012	4	
55	7/31/2012	4	
56	7/31/2012	5	
57	7/31/2012	5	A FIGURE 1
58	7/31/2012	5	800
59	7/31/2012	5	
60	7/31/2012	5	000105 0 F2
61	7/31/2012	5	
62	7/31/2012	6	
63	7/31/2012	6	
64	8/2/2012	4	
65	8/2/2012	4	
66	8/7/2012	5	
67	8/7/2012	5	
68	8/7/2012	5	
69	8/7/2012	5	
70	8/7/2012	5	
71	8/7/2012	5	
72	8/7/2012	5	
73	8/7/2012	5	
74	8/7/2012	6	
75	8/7/2012	6	
76	8/15/2012	5	
77	8/15/2012	5	
78	8/15/2012	5	12.03
79	8/15/2012	5	
80	8/15/2012	5	
81	8/23/2012	6	
82	8/23/2012	5	



TETRATECH EC, INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
83	8/23/2012	5	
84	8/23/2012	5	
85	8/23/2012	5	
86	8/23/2012	4	
87	8/23/2012	4	
88	8/23/2012	5	
89	8/23/2012	4	
90	8/23/2012	5	3000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000
91	8/23/2012	5	
92	8/23/2012	5	
93	8/23/2012	5	
94	8/23/2012	6	
95	8/23/2012	5	
96	8/23/2012	6	
97	8/23/2012	5	
98	8/23/2012	5	
99	8/23/2012	5	
100	8/23/2012	5	

Exposure Rate Summary (µR/hr)

Min: 4.00

Avg: 5.03

Max: 6.00

St Dev: 0.54

Chain-of-Custody'Record

TETRATECH EC. INC.
1230 Columbia St. Suite 750
San Diego. CA 92101

Project Name Radiological Building Survey	g Survey	PO Nuttili	174	1		F	CS	4		LABORATORY NAME	
Project Location HUNTERS POINT	N I	Project Namos	Karne	3670-0003	8	T	A Z Z	그라		ONSITE - RSRS	Project Information
Sampler Name Rolfe		Airbill Namor	dianet	A/N		T	· ·	4		1ABORTTOBY III	Section
Project Chemist LISA BIENKOWSKI	/SKI	Project (Project Cramst Phone	nc 949-756-7592	.7592	T	A. (c) ()				
SAMPLE_ID	DATE	TIME	Cantainers LEVEL	LEVEL	TYPE	- 4	-	-	COMMENTS	LOCATION	
03707-S0022-F001-01	4/22/2011	5180	-		S	. [5	[]	1		NOTIFICA	SAMPLE ID
03707-50022-F002-01	4/22/2011		-		S	3 [3		J C			
03707-S0022-F003-01	4/22/2011		-		S	3 13	-	<u> </u>			
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03707-S0022-F006-01	4/22/2011		-		S	<u> </u>					
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03707-S0022-F012-01	4722/2011 CG44C	0460	-		Ø	[]] [
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Chain-of-Custody Record

1230 Columbia St, Suite 750

San Diego, C.A 92101

TETRATECH EC, INC.

BFS 01956

Project Information Section SAMPLE ID ONSITE - RSRS LABORATORY NAME LOCATION LABORATORY ID COMMENTS A II II A [2] <u>S</u> Σ 2 S 24 6 0 [2] [5] ひまればすると思り [] K 12 Ş [3] [2] 1 [2] [2] TYPE 949-756-7592 Ø S ß Ø Ø ഗ Ø Ø S Ø S ഗ 3670-0003 · Mulainers | LEVEL ¥ ž Project Circuitst Phone Project Number Airbill Nasaner PO Numer 4/22/2011 095S 4122/2011 CG45 5601 TIME 4722/2011 CGSC 4/22/2011 /CCC 4/22/2011 1/CC5 10,20 4/22/2011 1010 4/22/2011 10:33 4122/2011 1015 4/22/2011 103/5 4/22/2011 1040 DATE 4/22/2011 4/22/2011 Project Name Radiological Building Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name Rolfe 03707-S0022-F014-01 03707-S0022-F013-01 03707-S0022-F015-01 03707-S0022-F016-01 03707-S0022-F017-01 03707-S0022-F018-01 03707-S0022-F019-01 03707-S0022-F020-01 03707-S0022-F021-01 03707-S0022-F022-01 03707-S0022-F023-01 03707-S0022-F024-01 SAMPLE_ID

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TETRATECH EC, INC.
1230 Columbia St. Suite 750
Sun Diega, CA 92101

Chain-of-Custody Record

BFS 01957

Page 1 of 1

Project Name		PO Numer				ł			i			
Hadiological Building Survey	g Survey			N/A		_	S	¥		LABORATORY NAME		
Project Lecation HUNTERS POINT	Į.	Project Nationer	abarber.	3670-0003	٤		≃ 5.	-) a		Saga attisvo	Project Information	E
Sumpler Name (RAIC)		Airbill Number	Action CT		3	T	•	I 4		Oralie: ASIO	Section	
Pinital China				N/		1				LABORATORY ID		-
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03707-S0022-F026-01	4/22/2011	5	-		۵	<u> </u>		_	185			
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10-120-1-2200	4/22/2011	1055			ဟ	15		-				
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03707-S0022-F030-01	4/22/2011		-) (3						
03707-S0022-F031-01	4/22/2011		T-		, 0	N						
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		SAMPLING COMMENTS								
	LABORATORY INSTRUCTIONS/COMMENTS			COMPOSITE DESCRIPTION			AMPLE CONDITION OF	TEAMER ATTERNATION OF THE CELETY (FOR LABORATORY)	A EDIT PART I SAMPLE CONDITION: COOLER SEAL;	こうこう つきがく あいしん こいではない なんしん マイン・ション・ション・ション・ション・ション・ション・ション・ション・ション・ショ
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Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Project Name		PO Number	j i			r	נ	ļ.	L		LABORATORY NAME	
Radiological Building Survey	Survey		ì	N/A) (n o	- J	3	7	Project Information
Project Location: HUNTERS POINT		Project Number	mber	4044-0007	2		XΧ	60	四点	*8	ONSITE - Curtis & Tompkins, LTD.	Section
Sampler Name J. Rolfe	٦	Airbill Number	Ber Ber	A/N	72		4 22 B	-			TABORY TOR BID FOR THE BEST OF THE	
Project Chemist LISA BIENKOWSKI	;KI	Project Ch	Project Chemist Phone	949-756-7592	7592		- E O		100			12
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Company RSRS	705/mir	Company	OH WINDS AND THEFT
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Company	Time	Сотрапу	HANDERSON AND SANTERACTORN STOREST AND STO

BFS 02399

TETRATECH EC, INC.
1230 Columbia St, Suite 750
Sen Diego, CA 92101

Chain-of-Custody Record

PG Number (G S A A A R L	20 1050; 24 25		LABORATORY NAME	Project Information
Project Number 4044-0007 M · 0 H	οò		•	ONSITE - Curtis & Tempidns, LTD.	Section
Airbill Number S S A	< ∞ △			Migriving	
Project Chemist Phone 949-756-7592 C	· NO	= 11	53	er en en en en en en en en en en en en en	
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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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TETRATECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

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Page 1 of 1

Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

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TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

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TETRA TECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 22



POST REMEDIATION 3 SAMPLES 64-65 CHARACTERIZATION 1 SAMPLES 66-75 POST REMEDIATION 4 SAMPLES 76-80

SYSTEMATIC 3 SAMPLES 81-100

PREVIOUS REMEDIATION POTHOLE LOCATIONS

TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

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DAILY STATUS REPORT Parcel E and Utility Corridor 3 (UC3) Storm Drain and Sanitary Sewer Removal Action

Report Date: April 22, 2011	EMAC – CTO 03

Overview

The HPS Team continued field activities in the Building 707 Triangle Area and Work Areas #16 and #21. Details of the work activities performed are provided in the sections below.

Building 707 Triangle Area

- The HPS Team performed survey activities in Survey Unit 22. A total of 11 biased and 20 systematic gamma static measurements were logged. The maximum measurements logged were 183 cpm (FIDLER) and 6,654 cpm. In addition, 31 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPS Team provided the RASO with analytical results for the characterization samples collected from pothole lifts in Survey Unit 7. No activity above the release criteria was identified
- The HPS Team provided the RASO with off-site analytical results for the postremediation samples collected from Survey Unit 20. No activity above the release criteria was identified.

Parcel E/UC3 Storm Drain and Sanitary Sewer Removal Activities

 A variety of housekeeping activities were performed throughout Parcels E and UC3 by the HPS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 1, 2012	DMAC CTO 07
Report Date. Way 1, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- A total of 49 cubic yards of soil were remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins AWIU000261, ERRU000145, and GFLU001030T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Asphalt Grid A7 A total of 550 alpha/beta scan readings were logged. The preliminary data indicates the presence of beta activity above the release limit in one scan reading logged at 1,100 dpm/100 cm².
 - Survey Unit 22 A total of four post-remediation gamma static measurements were logged with maximum measurements of 194 cpm (FIDLER) and 5,034 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Units 13, 16, and 18. Because no activity above the release criteria was identified, remediation followed by postremediation sample collection activities will be performed.
- The HPNS Team provided the RASO with on-site analytical results for the biased and systematic samples collected from Class I Survey Unit 14. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:

 - Sample Point 7 (07500SA-S0014-F007-01) with 137 Cs at 0.1183 pCi/g Sample Point 17 (07500SA-S0014-F017-01) with 137 Cs at 0.2425 pCi/g
 - Sample Point 37 (07500SA-S0014-F037-01) with ¹³⁷Cs at 0.3768 pCi/g

• The HPNS Team provided the RASO with on-site analytical results for the additional characterization samples collected from Class 1 Survey Units 19 and 21. Because no activity above the release criteria was identified, no further remediation will be performed in these survey units.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 204 cubic yards of soil from Work Area #36 and transferred materials to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-7F	133 linear feet completed
-	07-E36-00-7G	10 linear feet completed
-	07-E36-00-7H	12 linear feet completed
-	07-E36-00-7I	6 linear feet completed
-	07-E36-00-8Y	25 linear feet completed

- A total of 161 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 25 linear feet not identified on the design drawings were completed by the HPNS Team.
- Excavated Manhole MH1244 was placed on plastic pending further activities.
- The HPNS Team provided the RASO with analytical results for the sediment samples
 collected from Manholes MH1302 and MH1303. Both manholes will be placed in
 LLRW bins for off-site disposal due to the presence of ¹³⁷Cs contamination as follows:
 - Manhole MH1302 (07-PEMH1302-013-01) with ¹³⁷Cs at 0.2161 pCi/g
 - Manhole MH1303 (07-PEMH1303-014-01) with ¹³⁷Cs at 0.1319 pCi/g
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 249. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 17 (0.2726 pCi/g).
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 248; no activity above the release criteria was identified.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: May 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 520 Site

• The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 5; no activity above the release criteria was identified.

Building 707 Triangle

- A total of 18 cubic yards of soil were remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bin ERRU000162 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Asphalt Grid A7 A total of 1,100 alpha/beta scan readings were logged. The preliminary data results did not indicate the presence of alpha/beta activity above the release limits.
 - Survey Unit 22 A total of four post-remediation gamma static measurements were logged with maximum measurements of 239 cpm (FIDLER) and 5,859 cpm. In addition, two soil samples were collected and submitted to the off-site laboratory for total strontium analysis.
- The RSO is in the process of reviewing the survey data for Asphalt Grid A7 and Survey Unit 22.

Shacks 79 and 80

• The HPNS Team provided the RASO with total strontium analytical results for the samples collected from Class 1 Survey Unit 2 that identified elevated ¹³⁷Cs activity; no further contamination was identified.

500 Series Area

 Approximately 2.5 cubic yards of soil was remediated from Class 1 Survey Units 16 and 18 by the HPNS Team and placed in LLRW bin AWIU000263 for off-site disposal.

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 20. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination at Sample Point 76 (0.161 pCi/g).
- The HPNS Team provided the RASO with total strontium analytical results for the samples collected from Class 1 Survey Units 15 and 17 that identified elevated ¹³⁷Cs activity; no further contamination was identified.
- The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 21; no activity above the release criteria was identified.
- The HPNS Team issued the following drawings:
 - Survey Unit 12 Biased and Systematic Sample Collection
 - Survey Unit 14 Characterization Sample Collection
 - Survey Unit 16 Remediation and Post-Remediation Sample Collection
 - Survey Unit 18 Remediation and Post-Remediation Sample Collection
 - Survey Unit 19 Characterization Sample Collection
 - Survey Unit 21 Remediation and Post-Remediation Sample Collection.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

 The HPNS Team excavated approximately 312 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-7G	108 linear feet completed
-	07-E36-00-9L	24 linear feet completed
-	07-E36-38-3U	51 linear feet completed
-	07-E36-38-3W	60 linear feet completed
_	07-E36-38-3X	30 linear feet completed

- A total of 249 linear feet of trench (including excavated soil and pipes) identified on the design drawings and 24 linear feet not identified on the design drawings were completed by the HPNS Team.
- The HPNS Team issued drawings to identify locations for remediation and postremediation sample collection in Trench Unit No. 249.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



R	eport Date:	May 14, 2	2012	RMAC-	- CTO 07	

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- Approximately 4 cubic yards of soil was remediated from Class 1 Survey Unit 21 by the HPNS Team and placed in LLRW bin GFLU001181T4 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 21 A total of 30 post-remediation gamma static measurements were logged with maximum measurements of 229 cpm (FIDLER) and 5,202 cpm. In addition, 15 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 22 A total of eight post-remediation gamma static measurements were logged with maximum measurements of 197 cpm (FIDLER) and 5,220 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 14 and 20.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 19. A total of three characterization gamma static measurements were logged with a maximum measurement of 6,238 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify biased, characterization, and systematic sample collection locations in Class 1 Survey Unit 11 and record drawings to identify post-remediation sample collection locations in Class 1 Survey Units 14 and 20.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 396 cubic yards of soil from Work Area #36 and transferred the material to both RSY3 and RSY4 for processing. Excavation activities were performed for the following trench segments:
 - 07-E36-00-3T

-	07-E36-00-3U	25 linear feet completed
-	07-E36-00-3X	3 linear feet completed
-	07-E36-00-3Z	24 linear feet completed
-	07-E36-00-4A	10 linear feet completed
-	07-E36-39-1U	10 linear feet completed

- A total of 130 linear feet of trench (including excavated soil and pipes) identified on the design drawings were completed by the HPNS Team.
- Pipes excavated from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U were placed on plastic pending further activities.
- The HPNS Team investigated trench segment 07-E36-00-3X for the presence of pipe. Although depicted on the design drawing, no pipe was found during the investigation.
- A sediment sample was collected from pipe excavated from trench segment 07-E36-00-3T (07-PEPI-0028-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A total of 18 systematic soil samples were collected from Trench Unit No. 301 by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: June 29, 2012 RMAC - CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:
 - Sample Point 11 (07500SA-S0022-F011-01) with 137 Cs at 0.1628 pCi/g Sample Point 38 (07500SA-S0022-F038-01) with 137 Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ¹³⁷Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ¹³⁷Cs at 0.1338 pCi/g
- Sample Point 35 (07500SA-S0023-F035-01) with ¹³⁷Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ¹³⁷Cs at 0.1210 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:
 - Sample Point 7 (07500SA-S0024-F007-01) with ¹³⁷Cs at 0.1434 pCi/g
 - Sample Point 11 (07500SA-S0024-F011-01) with ¹³⁷Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: July 2, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, Shacks 79 and 80, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 520 Site

• The HPNS Team provided the RASO with isotopic plutonium analytical results for the elevated ⁹⁰Sr sample collected from Class 1 Survey Unit 5; no further contamination was identified.

Shacks 79 & 80

- Approximately 1 cubic yard of soil was remediated from Class 1 Survey Unit 1 by the HPNS Team and placed in LLRW bin GFLU001228T17 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A total of three characterization and one replacement systematic gamma static measurements were logged with a maximum measurement of 4,491 cpm. In addition, four soil samples were collected and submitted to the on-site and off-site laboratories for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify remediation and both characterization and replacement systematic sample collection locations in Class 1 Survey Unit 1.

Building 707 Triangle

- Approximately 14 cubic yards of soil was remediated from Class 1 Survey Units 21 and 22 by the HPNS Team and placed in LLRW bins GFLU001200T18 and GFLU001233T8 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 21 A total of four post-remediation gamma static readings were logged with the maximum measurements recorded at 215 cpm (FIDLER) and 4,148 cpm. In addition, two soil samples were collected and submitted to the onsite laboratory for analysis.

- Survey Unit 22 A total of six post-remediation gamma static readings were logged with the maximum measurements recorded at 224 cpm (FIDLER) and 4,167 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 21 and 22
- The HPNS Team issued record drawings to identify post-remediation sample collection locations in the pothole excavations associated with the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23).

500 Series Area

- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs sample collected from Class 1 Survey Unit 16; no further contamination was identified.
- The HPNS Team provided the RASO with the off-site analytical results for the systematic and replacement systematic samples collected from Class 1 Survey Units 10, 14, and 20; no activity above the release criteria was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Trench Unit No. 300; no further contamination was identified.
- Swale installation activities were continued by the HPNS Team along Hussey Street.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



Report Date: August 8, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued excavation and removal activities for the containment vault associated with the former underground radiological waste storage tank in Survey Unit 3; removed concrete walls and support structures were placed on plastic pending upcoming radiological surveys
- Approximately 15 cubic yards of the concrete containment vault bottom were removed and placed directly into LLRW bins AWIU000175T1 and ERRU000162T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of two replacement systematic gamma static measurements were logged at 305 cpm (FIDLER) and 6,418 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the characterization and post-remediation samples collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.

500 Series Area

- Approximately 30 cubic yards of concrete and soil were remediated from Class 1 Survey Unit 24 by the HPNS Team and placed in LLRW bins AWIU000107, AWIU000175T1, AWIU000190, ERRU000150, ERRU000162T1, GFLU001015T3, and GFLU001051T1 for off-site disposal.
- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Unit 24. Characterization and remediation will be continued due to the presence of ¹³⁷Cs above the release criteria at Sample Point 66 (0.1557 pCi/g).

• The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Units 15, 23, and 24; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites). Characterization and remediation will be performed due to the presence of ¹³⁷Cs above the release criteria at Sample Point 34 (0.170 pCi/g).
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs sample collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites); no further contamination was identified.
- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 861 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: July 31, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team completed excavation of the remaining tank pit concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The tank pit measures approximately 10 feet in width, 30 feet in length, and 8 feet in depth. A sump pump measuring 1 cubic foot was identified at the base of the structure. Due to the presence of the cracked vault floor, a sample was collected from the soil beneath the concrete surface and submitted to the on-site laboratory for analysis
- During radiological surface scanning of the removed soil and debris, 170 linear feet of 1.5 inch diameter utility piping, 1 sump filter, 2 metal valves, and 4 cubic yards of soil indicated the presence of elevated gamma readings. The HPNS Team transferred these items to LLRW bin ERRU000159T1 for off-site disposal. In addition, a waste characterization sample was collected and submitted to the on-site laboratory for analysis.
- Perimeter fencing was installed around the exposed tank pit by the HPNS Team.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 22 A total of 40 systematic gamma static measurements were logged with the maximum measurements recorded at 240 cpm (FIDLER) and 5,563 cpm. In addition, 20 soil samples were collected and submitted to the onsite laboratory for analysis.
 - Survey Unit 23 A total of 4 biased and 40 systematic gamma static measurements were logged with the maximum measurements recorded at 286 cpm (FIDLER) and 5,730 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 23 and 24

- The HPNS Team provided the RASO with the following:
 - Total strontium analytical results for the 10 additional 12-inch deep pothole excavations around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23); no activity above the release criteria was identified.
 - Total strontium analytical results for the characterization sample collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.
 - Total strontium analytical results for the post-remediation samples collected from Class 1 Survey Unit 22. Characterization and remediation will be performed due to the presence of ⁹⁰Sr activity above the release criteria at Sample Point 40 (1.29 pCi/g).
 - Isotopic plutonium analytical results for the elevated ⁹⁰Sr samples collected from Class 1 Survey Units 21 and 22; no further contamination was identified.
 - Off-site analytical results for the systematic samples collected from Class 1
 Survey Unit 14; no activity above the release criteria was identified.

Shacks 79 and 80

• The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified.

500 Series Area

- Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 15 by the HPNS Team and placed in LLRW bin ERRU000159T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 15. A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,811 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Approximately 855 tons of asphalt near Building 411was ground and recycled by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: August 2, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team provided the RASO with on-site analytical results for the three unique soil stratifications encountered during excavation of the containment vault associated with the former radiological waste storage tank. Because ¹³⁷Cs contamination was identified in the lowest soil layer at 0.2263 pCi/g (Sample No. 07AB506-246), soil and debris removed from the containment vault will be disposed of as LLRW.
- The HPNS Team provided the RASO with on-site analytical results for the soil sample collected from the access hole in the containment vault concrete floor. Because ¹³⁷Cs contamination was identified in Sample No. 07AB506-247 at 0.4690 pCi/g, the containment vault and surrounding soils will be excavated and disposed of as LLRW.
- Approximately 54 cubic yards of soil removed from the containment vault was transferred by the HPNS Team to LLRW bins AWIU000105T1, GFLU000108T1, and GFLU001186T19 for off-site disposal. In addition, waste characterization samples were collected for each LLRW bin and submitted to the on-site laboratory for analysis.

Building 707 Triangle

The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of four
post-remediation gamma static measurements were logged with the maximum gamma
measurements recorded at 200 cpm (FIDLER) and 4,091 cpm. In addition, two soil
samples were collected and submitted to the on-site laboratory for analysis. The RSO is
in the process of reviewing these data.

500 Series Area

 The HPNS Team provided the RASO with the on-site analytical results for the postremediation samples collected from Class 1 Survey Unit 15; no activity above the release criteria was identified. • The HPNS Team issued drawings to identify the replacement systematic sample collection location in Class 1 Survey Unit 15 and remediation locations in Class 1 Survey Unit 24 and Class 2 Survey Unit 25.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Approximately 879 tons of asphalt was ground and recycled near Building 411 by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



Report Date: August 7, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team continued activities on the containment vault concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The upper five feet of the containment vault concrete walls were removed and placed on plastic pending radiological survey activities.
- Approximately 10 cubic yards of soil generated during excavation of the outer walls of the containment vault were transferred by the HPNS Team to LLRW bin AWIU000216T1 for off-site disposal.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 16 A total of two characterization gamma static measurements were logged at 226 cpm (FIDLER) and 6,811 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 22 A total of twenty characterization gamma static measurements were logged with the maximum measurements recorded at 231 cpm (FIDLER) and 5,689 cpm. In addition, ten soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing survey data for Class 1 Survey Units 16 and 22.
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Units 16 and 22.

500 Series Area

• The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Units 22 through 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 893 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: August 15, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

 Approximately 6.5 cubic yards of concrete associated with the containment vault concrete walls was removed and placed directly into LLRW bin AWIU000258 for offsite disposal.

Building 707 Triangle

- Approximately 7 cubic yards of soil was remediated from Class 1 Survey Units 16 and 22 by the HPNS Team and placed in LLRW bins AWIU000258 and BKRU025663T20 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 10 post-remediation static gamma measurements were logged with maximum measurements of 193 cpm (FIDLER) and 5,090 cpm. In addition, five soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 23. A total of 27 post-remediation gamma static measurements were logged with a maximum measurement of 6,834 cpm. In addition, 27 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued record drawings to identify post-remediation sample collection locations in Class 1 Survey Units 23 and 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued for Trench Unit No. 307 by the HPNS Team.
- The HPNS Team provided the RASO with on-site analytical results for the replacement systematic sample collected from Trench Unit No. 305 (associated with the Building 510/510A and 517 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 501 tons of asphalt near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: August 23, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided below.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 40 systematic gamma static measurements were logged with maximum measurements of 253 cpm (FIDLER) and 6,680 cpm. In addition, 20 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify systematic sample collection locations in Class 1 Survey Unit 22.

500 Series Area

- The HPNS Team provided the RASO with on-site laboratory analytical results for the
 post-remediation samples collected from Class 1 Survey Unit 24. Because no activity
 above the release criteria was identified, systematic sample collection activities will be
 performed.
- The HPNS Team provided the RASO with on-site laboratory analytical and survey results for the systematic soil samples collected from Class 1 Survey Unit 26. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify systematic sample collection locations in Class 1 Survey Unit 24.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued for Trench Unit No. 300 by the HPNS Team.
- Backfill activities were initiated for Trench Unit No. 306 (associated with the Building 507, 508, and 509 Sites) by the HPNS Team.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.

- Staged rebar and scrap metal debris was sized and prepared for transfer to the recycling bins near Building 411.
- Grinding and recycling activities were performed by Kroeker and the HPNS Team on approximately 251 tons of concrete near Building 411.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report

	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
707	22	1	Biased	03707-S0022-F001-01	22-Apr-11	Jeff Rolfe
707	22	2	Biased	03707-S0022-F002-01	22-Apr-11	Jeff Rolfe
707	22	3	Biased	03707-S0022-F003-01	22-Apr-11	Jeff Rolfe
707	22	4	Biased	03707-S0022-F004-01	22-Apr-11	Jeff Rolfe
707	22	5	Biased	03707-S0022-F005-01	22-Apr-11	Jeff Rolfe
707	22	6	Biased	03707-S0022-F006-01	22-Apr-11	Jeff Rolfe
707	22	7	Biased	03707-S0022-F007-01	22-Apr-11	Jeff Rolfe
707	22	8	Biased	03707-S0022-F008-01	22-Apr-11	Jeff Rolfe
707	22	9	Biased	03707-S0022-F009-01	22-Apr-11	Jeff Rolfe
707	22	10	Biased	03707-S0022-F010-01	22-Apr-11	Jeff Rolfe
707	22	11	Biased	03707-S0022-F011-01	22-Apr-11	Jeff Rolfe
707	22	12	Systematic	03707-S0022-F012-01	22-Apr-11	Jeff Rolfe
707	22	13	Systematic	03707-S0022-F013-01	22-Apr-11	Jeff Rolfe
707	22	14	Systematic	03707-S0022-F014-01	22-Apr-11	Jeff Rolfe
707	22	15	Systematic	03707-S0022-F015-01	22-Apr-11	Jeff Rolfe
707	22	16	Systematic	03707-S0022-F016-01	22-Apr-11	Jeff Rolfe
707	22	17	Systematic	03707-S0022-F017-01	22-Apr-11	Jeff Rolfe
707	22	18	Systematic	03707-S0022-F018-01	22-Apr-11	Jeff Rolfe
707	22	19	Systematic	03707-S0022-F019-01	22-Apr-11	Jeff Rolfe
707	22	20	Systematic	03707-S0022-F020-01	22-Apr-11	Jeff Rolfe
707	22	21	Systematic	03707-S0022-F021-01	22-Apr-11	Jeff Rolfe
707	22	22	Systematic	03707-S0022-F022-01	22-Apr-11	Jeff Rolfe
707	22	23	Systematic	03707-S0022-F023-01	22-Apr-11	Jeff Rolfe
707	22	24	Systematic	03707-S0022-F024-01	22-Apr-11	Jeff Rolfe
707	22	25	Systematic	03707-S0022-F025-01	22-Apr-11	Jeff Rolfe
707	22	26	Systematic	03707-S0022-F026-01	22-Apr-11	Jeff Rolfe
707	22	27	Systematic	03707-S0022-F027-01	22-Apr-11	Jeff Rolfe
707	22	28	Systematic	03707-S0022-F028-01	22-Apr-11	Jeff Rolfe
707	22	29	Systematic	03707-S0022-F029-01	22-Apr-11	Jeff Rolfe
707	22	30	Systematic	03707-S0022-F030-01	22-Apr-11	Jeff Rolfe
707	22	31	Systematic	03707-S0022-F031-01	22-Apr-11	Jeff Rolfe
707	22	32	Sr90 Remediation	03707-S0022-F032-01	01-May-12	Jeff Rolfe
707	22	33	Sr90 Remediation	03707-S0022-F033-01	01-May-12	Jeff Rolfe Jeff Rolfe
707	22	34	Sr90 Remediation	03707-S0022-F034-01	02-May-12	
707	22	35	Sr90 Remediation	03707-S0022-F035-01	02-May-12	Rick Zahensky
707	22	36	Post-Remediation	03707-S0022-F036-01	14-May-12	Rick Zahensky
707	22	37	Post-Remediation	03707-S0022-F037-01	14-May-12	Rick Zahensky
707	22	38 39	Post-Remediation Post-Remediation	03707-S0022-F038-01 03707-S0022-F039-01	14-May-12 14-May-12	Rick Zahensky
707 707	22	40	Post-Remediation	03707-S0022-F040-01	29-Jun-12	Rick Zahensky
707	22	41	Post-Remediation	03707-S0022-F040-01	02-Jul-12	Rick Zahensky
707	22	42	Post-Remediation	03707-S0022-F041-01	02-Jul-12 02-Jul-12	Rick Zahensky
707	22	43	Post-Remediation	03707-S0022-F042-01	02-Jul-12	Rick Zahensky
707	22	44	Systematic	03707-S0022-F044-01	08-Aug-12	Jeff Rolfe
707	22	45	Systematic	03707-S0022-F045-01	31-Jul-12	Anthony Smith
707	22	46	Systematic	03707-S0022-F046-01	31-Jul-12	Anthony Smith
707	22	47	Systematic	03707-S0022-F047-01	31-Jul-12	Anthony Smith
707	22	48	Systematic	03707-S0022-F048-01	31-Jul-12	Anthony Smith
707	22	49	Systematic	03707-S0022-F049-01	31-Jul-12	Anthony Smith
707	22	50	Systematic	03707-S0022-F050-01	31-Jul-12	Anthony Smith
707	22	51	Systematic	03707-S0022-F051-01	31-Jul-12	Anthony Smith
707	22	52	Systematic	03707-S0022-F052-01	31-Jul-12	Anthony Smith
707	22	53	Systematic	03707-S0022-F053-01	31-Jul-12	Anthony Smith
1.01				1 - 3 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2		

On-Site Laboratory (pCi/g)							
K-40	Ra-226	Cs-137	Bi-214	Pb-214			
14.6	0.4295	0.004363	0.3873	0.4731			
15.93	0.7036	-0.002437	0.4207	0.4913			
15.41	0.4906	0	0.3078	0.2995			
11.22	0.1889	0.007279	0.06852	0.1038			
13.74	0.371	-0.004928	0.3497	0.4716			
9.391	0.1104	0	0.05633	0.2068			
10.93	0.2889	0	0.3574	0.1917			
11.16	0.3361	0	0.09782	0.1587			
11.77	0.224	-0.00186	0.09234	0.2864			
10.53	0.4351	-0.01214	0.1677	0.2949			
8.683	0.3903	0.0139	0.227	0.3261			
7.621	0.4132	-0.009895	0.1858	0.3122			
4.069	-0.05031	0.002237	0.101	0.149			
13.84	0.4277	0.002051	0,4146	0.4141			
15.43	0.4447	0.0127	0.3089	0.3812			
11.21	1.108	-0.00008475	0.4179	0.4405			
15.85	0.1139	-0.001627	0.2309	0.2663			
12.96	0.01835	-0.001102	0.1664	0.1644			
8.657	-0.01906	0.003394	0.1198	0.1682			
14.11	0.4557	0.003334	0.2746	0.4187			
14.49	0.3527	0.0007028	0.3519	0.2212			
10.1	0.3327	0.0007028	0.1693	0.2672			
13.34	0.8487	0.0048	0.2012	0.3666			
			0.1017	0.07488			
6.292	-0.03328	0.0103		0.07466			
11.87	0.4893	0.01473	0.2222				
17.94	0.9182	0.002209	0.4958	0.5276			
12.42	0.2551	-0.0004736	0.096	0.1848			
14.38	-0.02077	0.005459	0.1056	0.1912			
9.297	0.4011	0 000005	0.2129	0.3209			
6.457	-0.0388	-0.003685	0.1054	0.03135			
6.2	0.1165	-0.0006781	0.2313	0.2157			
11.32	0.6497	-0.008756	0.2812	0.3429			
12.6	0.5271	-0.0001563	0.1564	0.1262			
2.819	0.02453	0	0.02953	0.159			
20.99	0.4983	0.1581	0.1682	0.2973			
17.43	0.1857	0.002068	0.5686	0.5451			
13.66	0.9134	0.03359	0.3809	0.4283			
17.14	-0.02445	0.01827	0.05633	0.2062			
14.54	0.5327	-0.002218	0.2823	0.2936			
12.54	0.6083	0.0003269	-0.02339	0.1914			
15.33	0.6714	-0.007957	0.2342	0.3188			
13.22	0.5198	-0.001097	0.2305	0.3998			
13.49	0.8327	0.00789	0.3543	0.3497			
0.7434	0.09522	0.0003437	0.01371	0.07965			
10.49	0.06737	0.1448	0.3403	0.3289			
12.58	0.4815	0.01202	0.2862	0.2154			
19.1	0.5782	-0.0002317	0.2996	0.485			
12.06	0.6185	0.001965	0.4296	0.2591			
15.37	0.6668	0.0003866	0.3827	0.3735			
16.58	0.1908	-0.0008727	0.1897	0.1937			
9.592	0.03913	0.005825	0.06908	0.09955			
13.77	0.3323	0.1144	0.2344	0.2191			
9.225	0.08332	0.004033	0.06761	0.1584			

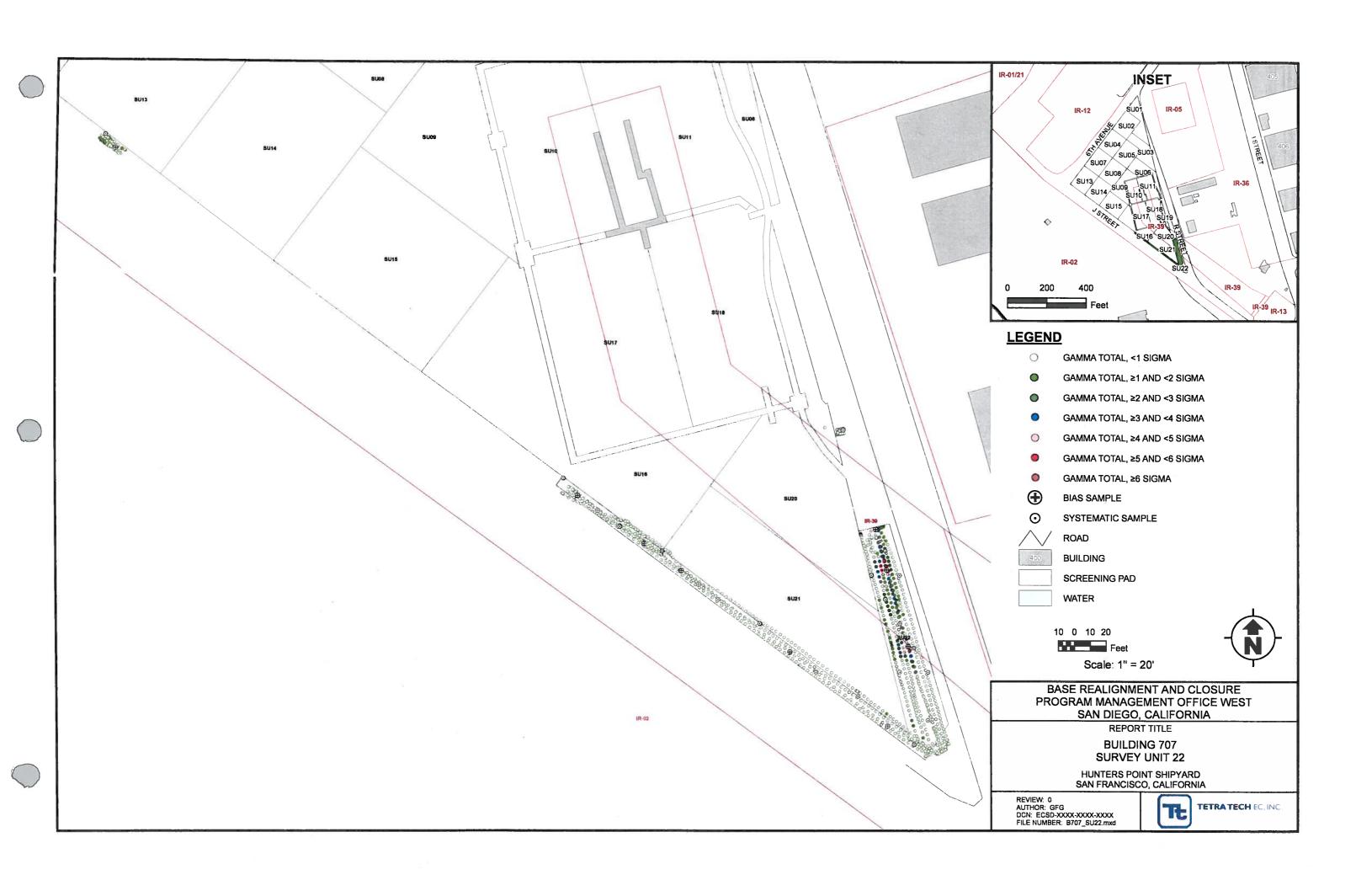
	UIT-	Site Laboratory (pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
9.31	0.35	-0.000341	0.35	0.366
2.93	0.215	0.00582	0.215	0.0997
12.8	0.491	0.0104	0.491	0.585
11.1 14.2	0.5 0.551	-0.00552 0.0122	0.5 0.551	0.53 0.558
14.7	0.519	0.0122	0.551	0.556
9.49	0.332	-0.015	0.332	0.43
8.63	0.146	0.0223	0.146	0.221
15.4	0.321	0.02	0.321	0.704
15	0.674	0.0149	0.674	0.558
8.36	0.252	-0.0183	0.252	0.303
13.7	0.497	0.00516	0.497	0.387
12.2	0.421	0.00306	0.421	0.36
7.32	-0.0135	0.0148	-0.0135	0.159
13.6	0.63	0.00116	0.63	0.677
10.2	0.136	0.000517	0.136	0.374
14.4	0.139	0.00063	0.139	0.342
12.1	0.475	0.0192	0.475	0.631
7.26	0.191	-0.000146 0.0142	0.191 0.355	0.235 0.369
9.48	0.355	0.0142	0.355	0.369

Area	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Type	ID	Collected	Technician
707	22	54	Systematic	03707-S0022-F054-01	31-Jul-12	Anthony Smith
707	22	55	Systematic	03707-S0022-F055-01	31-Jul-12	Anthony Smith
707	22	56	Systematic	03707-S0022-F056-01	31-Jul-12	Anthony Smith
707	22	57	Systematic	03707-S0022-F057-01	31-Jul-12	Anthony Smith
707	22	58	Systematic	03707-S0022-F058-01	31-Jul-12	Anthony Smith
707	22	59	Systematic	03707-S0022-F059-01	31-Jul-12	Anthony Smith
707	22	60	Systematic	03707-S0022-F060-01	31-Jul-12	Anthony Smith
707	22	61	Systematic	03707-S0022-F061-01	31-Jul-12	Anthony Smith
707	22	62	Systematic	03707-S0022-F062-01	31-Jul-12	Anthony Smith
707	22	63	Systematic	03707-S0022-F063-01	31-Jul-12	Anthony Smith
707	22	64	Post-Remediation	03707-S0022-F064-01	02-Aug-12	Jeff Rolfe
707	22	65	Post-Remediation	03707-S0022-F065-01	02-Aug-12	Jeff Rolfe
707	22	66	Characterization	03707-S0022-F066-01	07-Aug-12	Jeff Rolfe
707	22	67	Characterization	03707-S0022-F067-01	07-Aug-12	Jeff Rolfe
707	22	68	Characterization	03707-S0022-F068-01	07-Aug-12	Jeff Rolfe
707	22	69	Characterization	03707-S0022-F069-01	07-Aug-12	Jeff Rolfe
707	22	70	Characterization	03707-S0022-F070-01	07-Aug-12	Jeff Rolfe
707	22	71	Characterization	03707-S0022-F071-01	07-Aug-12	Jeff Rolfe
707	22	72	Characterization	03707-S0022-F072-01	07-Aug-12	Jeff Rolfe
707	22	73	Characterization	03707-S0022-F073-01	07-Aug-12	Jeff Rolfe
707	22	74	Characterization	03707-S0022-F074-01	07-Aug-12	Jeff Rolfe
707	22	75	Characterization	03707-S0022-F075-01	07-Aug-12	Jeff Rolfe
707	22	76	Post-Remediation	03707-S0022-F076-01	15-Aug-12	Jeff Rolfe
707	22	77	Post-Remediation	03707-S0022-F077-01	15-Aug-12	Jeff Rolfe
707	22	78	Post-Remediation	03707-S0022-F078-01	15-Aug-12	Jeff Rolfe
707	22	79	Post-Remediation	03707-S0022-F079-01	15-Aug-12	Jeff Rolfe
707	22	80	Post-Remediation	03707-S0022-F080-01	15-Aug-12	Jeff Rolfe
707	22	81	Systematic	03707-S0022-F081-01	23-Aug-12	Anthony Smith
707	22	82	Systematic	03707-S0022-F082-01	23-Aug-12	Anthony Smith
707	22	83	Systematic	03707-S0022-F083-01	23-Aug-12	Anthony Smith
707	22	84	Systematic	03707-S0022-F084-01	23-Aug-12	Anthony Smith
707	22	85	Systematic	03707-S0022-F085-01	23-Aug-12	Anthony Smith
707	22	86	Systematic	03707-S0022-F086-01	23-Aug-12	Anthony Smith
707	22	87	Systematic	03707-S0022-F087-01	23-Aug-12	Anthony Smith
707	22	88	Systematic	03707-S0022-F088-01	23-Aug-12	Anthony Smith
707	22	89	Systematic	03707-S0022-F089-01	23-Aug-12	Anthony Smith
707	22	90	Systematic	03707-S0022-F090-01	23-Aug-12	Anthony Smith
707	22	91	Systematic	03707-S0022-F091-01	23-Aug-12	Anthony Smith
707	22	92	Systematic	03707-S0022-F092-01	23-Aug-12	Anthony Smith
707	22	93	Systematic	03707-S0022-F093-01	23-Aug-12	Anthony Smith
707	22	94	Systematic	03707-S0022-F094-01	23-Aug-12	Anthony Smith
707	22	95	Systematic	03707-S0022-F095-01	23-Aug-12	Anthony Smith
707	22	96	Systematic	03707-S0022-F096-01	23-Aug-12	Anthony Smith
707	22	97	Systematic	03707-S0022-F097-01	23-Aug-12	Anthony Smith
707	22	98	Systematic	03707-S0022-F098-01	23-Aug-12	Anthony Smith
707	22	99	Systematic	03707-S0022-F099-01	23-Aug-12	Anthony Smith
707	22	100	Systematic	03707-S0022-F100-01	23-Aug-12	Anthony Smith

-	On-S	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
16.7	0.4551	0.02982	0.3168	0.3305
10.95	0.3957	0.03285	0.1733	0.3511
18.59	1.256	0.007916	0.3746	0.6653
13.83	0.7944	0.3355	0.3142	0.3599
18.95	0.6319	0.1291	0.4015	0.4725
17.71	0.6347	0.1419	0.4266	0.4528
13.46	0.5706	0.007399	0.3933	0.4135
14.8	0.7045	0.01191	0.3468	0.4122
18.25	1.029	0	0.3393	0.363
9.038	0.2303	-0.004328	0.2561	0.2155
1.158	0.3027	0	0.05071	0.0558
1.214	0.09519	-0.00141	-0.01005	0.0466
1.844	0	0.0004094	0.1142	0.09381
0.9697	0.15	-0.004368	0.05798	0.1215
0.9118	-0.1572	-0.006097	0.06276	0.1386
0.7041	0.1991	-0.002815	0.04832	0.03374
0.8321	0.0368	-0.003946	0.02724	0.05868
0.9673	0.3704	-0.004617	0.03761	0.1344
0.5437	0.1259	0.006632	0.0611	0
0.486	0.2445	0.009228	0.05871	0.06633
0.9082	0.1311	-0.004249	0.02277	0.04243
1.41	0.01773	-0.001018	0.03966	0.05691
1.119	0.0758	0.00602	0.1084	0.1071
0.9082	0.1134	0	0.06834	0.01176
0.4755	0.3053	-0.000699	0.05184	0.04178
1.221	0.0934	-0.004716	0.04945	0.1233
0.8861	0.108	0	0.003372	0.1362
0.5238	0.1046	0	0.0457	0.06157
0.5046	-0.01796	0	0.03112	0.04465
1.018	0.1995	0.00782	0.01325	0.09882
0.6387	0.2445	-0.0006185	0.04372	0.05256
0.4676	0.1138	0	0.01568	0.02506
0.4036	0.1243	-0.00585	0.01166	0.0399
0.6427	0.1398	-0.002715	0.01433	0.1456
0.5402	0.06083	0	-0.03851	0.01219
0.6286	0.004864	-0.00746	-0.005137	-0.007707
0.8984	-0.01682	-0.007707	0.04843	0.05357
0.4446	0.08688	0.006627	0.02457	0.04072
0.7225	-0.09149	-0.003634	0.0361	0.03664
0.6219	0	-0.0003882	0.05494	0.05583
0.8285	0.003954	0.003053	0.06295	0.1074
1.306	0.05902	0	0.0778	0.06895
1.165	0.2001	0.004483	0.04389	0.2061
0.8961	0.153	0	0.08016	0.05605
0.7094	0.2738	0	0.02735	0.07018
1.197	0.4918	0.004195	0.04845	0.08865
0.3402	0.5001	0	0.01793	0.03381
1.485 (pCi/a)				

Off-Site Laboratory (pCi/g) Cs-137 Bi-214 Pb-214 0.00786 -0.0211 0.00786 0.0668 0.468 0.00471 0.582 0.0515 0.0515 0.0697 0.727 0.124 0.124 0.0429 0 0.635 0.15 -0.00111 0.15 0.0719 0.678 0.0763 -0.019 0.0763 0.0523 0.0222 0.0222 0.126 0.776 0.000176 0.403 0.0535 -0.014 0.0535 0.0551 -0.00585 -0.0469 0.29 -0.0469 0.0897 0.232 0.0193 0.00963 0.0193 0.0462 0.518 0.0202 0.0202 0.0457 0 -0.436 -0.0352 -0.02 -0.0352 0.0343 0.661 -0.0388 0.00854 -0.0388 0.117 0.741 0.0857 -0.0073 0.0857 0.0756 0.914 0.228 0.00248 0.121 0.228 1.04 0.0457 0.00616 0.0457 0.166 0.0679 0.0595 1.38 -0.0221 0.0679 0.775 0.16 -0.0114 0.16 0.0733 0.769 0.0578 0.0237 0.0578 0.0824 1.68 0.035 0.0192 0.035 0.136 0.273 0.161 -0.00615 0.161 0.011

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.485; Pb-214 ≥ 1.485 (pCi/g)



LEGEND:

- CHARACTERIZATION 1 SAMPLE 1
- POST REMEDIATION 1 SAMPLE 2
- BIASED SAMPLES 3-4
- SYSTEMATIC 1 SAMPLES 5-24 PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 23



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

P:\CTO-03 CAD FILES\DWG FILES\707 SURVEY UNITS\707_SURVEY _10-15-12.DWG PLOT\UPDATE: OCT 18 2012 14:34:57



Survey Unit: 23 Site Area: 707 Class: 1 Area: 469.07 m² Count Time: 1 min

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3d Investigation Level (cpm)	Comments
1	6/22/2012 9:39	4296	5845	-1549	622-BKGDS1A	7004	Collected at Sidewall 12" depth
1	6/22/2012 9:37	5548	5845	-297	622-BKGDS1A	7004	Collected at Surface 0" depth
1	6/22/2012 9:40	4827	5845	-1018	622-BKGDS1A	7004	Collected at Bottom 24" depth
2	6/29/2012 13:35	3722	5845	-2123	622-BKGDS1A	7004	
3	7/31/2012 7:55	5730	5845	-115	622-BKGDS1A	7004	
4	7/31/2012 7:57	5268	5845	-577	622-BKGDS1A	7004	
5	7/31/2012 7:58	4974	5845	-871	622-BKGDS1A	7004	
6	7/31/2012 7:59	4848	5845	-997	622-BKGDS1A	7004	
7	7/31/2012 8:00	5696	5845	-149	622-BKGDS1A	7004	
8	7/31/2012 8:02	4212	5845	-1633	622-BKGDS1A	7004	14297
9	7/31/2012 8:03	5152	5845	-693	622-BKGDS1A	7004	
10	7/31/2012 8:04	4642	5845	-1203	622-BKGDS1A	7004	
11	7/31/2012 8:05	4112	5845	-1733	622-BKGDS1A	7004	
12	7/31/2012 8:07	4670	5845	-1175	622-BKGDS1A	7004	
13	7/31/2012 8:08	4827	5845	-1018	622-BKGDS1A	7004	
14	7/31/2012 8:10	4143	5845	-1702	622-BKGDS1A	7004	
15	7/31/2012 8:11	4855	5845	-990	622-BKGDS1A	7004	
16	7/31/2012 8:13	4427	5845	-1418	622-BKGDS1A	7004	
17	7/31/2012 8:14	4315	5845	-1530	622-BKGDS1A	7004	
18	7/31/2012 8:15	4502	5845	-1343	622-BKGDS1A	7004	
19	7/31/2012 8:17	4631	5845	-1214	622-BKGDS1A	7004	
20	7/31/2012 8:18	4685	5845	-1160	622-BKGDS1A	7004	
21	7/31/2012 8:20	4975	5845	-870	622-BKGDS1A	7004	
22	7/31/2012 8:21	5343	5845	-502	622-BKGDS1A	7004	
23	7/31/2012 8:22	4315	5845	-1530	622-BKGDS1A	7004	
24	7/31/2012 8:24	5117	5845	-728	622-BKGDS1A	7004	



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

 Rdg # Date / Time
 Gross
 Gamma
 Net
 Background
 3σ
 Comments

 Gamma
 Background
 Gamma
 ID*
 Investigation

 CPM
 CPM
 CPM
 Level (cpm)

Net Gamma cpm Min: -2123 Summary Aug: 1093

Avg: -1082 Max: -115 St Dev: 508

Readings > 3σ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg # Date and Time Gross Gamma CPI 1 10/13/2011 15:12 5811 2 10/13/2011 15:13 5788 3 10/13/2011 15:14 5839 4 10/13/2011 15:15 5848 5 10/13/2011 15:16 5775 6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001 14 10/13/2011 15:27 5852	_	_
2 10/13/2011 15:13 5788 3 10/13/2011 15:14 5839 4 10/13/2011 15:15 5848 5 10/13/2011 15:16 5775 6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001	CF	M
3 10/13/2011 15:14 5839 4 10/13/2011 15:15 5848 5 10/13/2011 15:16 5775 6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
4 10/13/2011 15:15 5848 5 10/13/2011 15:16 5775 6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
5 10/13/2011 15:16 5775 6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
6 10/13/2011 15:17 5780 7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
7 10/13/2011 15:18 5977 8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
8 10/13/2011 15:20 5831 9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
9 10/13/2011 15:21 5998 10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
10 10/13/2011 15:22 5240 11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
11 10/13/2011 15:23 5892 12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
12 10/13/2011 15:24 5899 13 10/13/2011 15:25 5001		
13 10/13/2011 15:25 5001		
14 10/13/2011 15:27 5052		
14 10/13/2011 13.2/ 3032	55-	W.
15 10/13/2011 15:28 5894		
16 10/13/2011 15:29 5075		
17 10/13/2011 15:31 6115		
18 10/13/2011 15:32 6400	111	
19 10/13/2011 15:33 6490		
20 10/13/2011 15:35 6396		

Gamma Mean Background (cpm): 5845

Standard Deviation: 386

Gamma 3σ Investigation 7004

Level (cpm):



TETRATECH EC, INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

1 1 2 3	6/22/2012 9:37 6/22/2012 9:36 6/22/2012 9:34 6/29/2012 13:36 7/31/2012 8:01 7/31/2012 8:02 7/31/2012 8:03	168 171 223 152 286 194	199 199 199 199	-31 -28 24 -47	620-BKGDS1A 620-BKGDS1A 620-BKGDS1A 620-BKGDS1A	344 344 344	Collected at Bottom 24" depth Collected at Sidewall 12" depth
1 2 3 4	6/22/2012 9:34 6/29/2012 13:36 7/31/2012 8:01 7/31/2012 8:02	223 152 286 194	199 199 199	24 -47	620-BKGDS1A		
2 3 4	6/29/2012 13:36 7/31/2012 8:01 7/31/2012 8:02	152 286 194	199 199	-47		344	Collected at Surface Of de-st
3 4	7/31/2012 8:01 7/31/2012 8:02	286 194	199		620-BKGDS1A		Collected at Surface 0" depth
4	7/31/2012 8:02	194		87		344	
_				1500	620-BKGDS1A	344	
5	7/31/2012 8:03		199	-5	620-BKGDS1A	344	
7		217	199	18	620-BKGDS1A	344	
6	7/31/2012 8:04	184	199	-15	620-BKGDS1A	344	
7	7/31/2012 8:05	203	199	4	620-BKGDS1A	344	
8	7/31/2012 8:07	180	199	-19	620-BKGDS1A	344	W- 1
9	7/31/2012 8:08	223	199	24	620-BKGDS1A	344	
10	7/31/2012 8:09	235	199	36	620-BKGDS1A	344	
11	7/31/2012 8:10	172	199	-27	620-BKGDS1A	344	
12	7/31/2012 8:11	201	199	2	620-BKGDS1A	344	
13	7/31/2012 8:12	225	199	26	620-BKGDS1A	344	
14	7/31/2012 8:14	176	199	-23	620-BKGDS1A	344	
15	7/31/2012 8:15	208	199	9	620-BKGDS1A	344	
16	7/31/2012 8:16	180	199	-19	620-BKGDS1A	344	
17	7/31/2012 8:17	195	199	-4	620-BKGDS1A	344	1 28
18	7/31/2012 8:18	155	199	-44	620-BKGDS1A	344	10 (200.00)
19 '	7/31/2012 8:19	207	199	8	620-BKGDS1A	344	
20	7/31/2012 8:20	180	199	-19	620-BKGDS1A	344	
21	7/31/2012 8:22	177	199	-22	620-BKGDS1A	344	
22	7/31/2012 8:23	177	199	-22	620-BKGDS1A	344	
23	7/31/2012 8:24	185	199	-14	620-BKGDS1A	344	
24	7/31/2012 8:25	201	199	2	620-BKGDS1A	344	



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Rdg # Date / Time Gross Gamma Net Background 3σ Comments
Gamma Background Gamma ID* Investigation
CPM CPM CPM CPM Level (cpm)

Net Gamma cpm Min: -47

Summary Avg: -4

Max: 87

St Dev: 29

Readings > 3σ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements $> 3\sigma$ investigation level are verified by 2360 beta measurements



Survey Unit: 23 Site Area: 707 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma CPM	Background CPM	Gamma CPM	ID*	Investigation Level (cpm)	
1	5/8/2012 14:24	166	199	-33	620-BKGDS1A	344	
2	5/8/2012 14:24	177	199	-22	620-BKGDS1A	344	
3	5/8/2012 14:24	168	199	-31	620-BKGDS1A	344	
4	5/8/2012 14:24	202	199	3	620-BKGDS1A	344	
5	5/8/2012 14:25	204	199	5	620-BKGDS1A	344	
6	5/8/2012 14:25	229	199	30	620-BKGDS1A	344	
7	5/8/2012 14:25	263	199	64	620-BKGDS1A	344	
8	5/8/2012 14:25	239	199	40	620-BKGDS1A	344	
9	5/8/2012 14:25	257	199	58	620-BKGD\$1A	344	
10	5/8/2012 14:25	272	199	73	620-BKGD\$1A	344	
11	5/8/2012 14:25	286	199	87	620-BKGDS1A	344	
12	5/8/2012 14:25	195	199	-4	620-BKGDS1A	344	
13	5/8/2012 14:25	233	199	34	620-BKGDS1A	344	
14	5/8/2012 14:26	220	199	21	620-BKGDS1A	344	
15	5/8/2012 14:26	201	199	2	620-BKGDS1A	344	
16	5/8/2012 14:26	152	199	-47	620-BKGDS1A	344	
17	5/8/2012 14:26	164	199	-35	620-BKGDS1A	344	
18	5/8/2012 14:26	182	199	-17	620-BKGDS1A	344	
19	5/8/2012 14:26	188	199	-11	620-BKGDS1A	344	
20	5/8/2012 14:26	219	199	20	620-BKGDS1A	344	
21	5/8/2012 14:26	178	199	-21	620-BKGDS1A	344	
22	5/8/2012 14:26	216	199	17	620-BKGDS1A	344	
23	5/8/2012 14:27	178	199	-21	620-BKGDS1A	344	
24	5/8/2012 14:27	229	199	30	620-BKGDS1A	344	
25	5/8/2012 14:27	194	199	-5	620-BKGDS1A	344	
26	5/8/2012 14:27	282	199	83	620-BKGDS1A	344	
27	5/8/2012 14:27	275	199	76	620-BKGDS1A	344	
28	5/8/2012 14:27	189	199	-10	620-BKGDS1A	344	
29	5/8/2012 14:27	155	199	-44	620-BKGDS1A	344	
30	5/8/2012 14:27	171	199	-28	620-BKGDS1A	344	
31	5/8/2012 14:28	200	199	1	620-BKGDS1A	344	
32	5/8/2012 14:28	212	199	13	620-BKGDS1A	344	



Survey Unit: 23 Area: 469.07 m² Class: 1 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
33	5/8/2012 14:28	192	199	-7	620-BKGDS1A	344	
34	5/8/2012 14:28	200	199	1	620-BKGDS1A	344	
35	5/8/2012 14:28	158	199	-41	620-BKGDS1A	344	
36	5/8/2012 14:28	165	199	-34	620-BKGDS1A	344	
37	5/8/2012 14:28	176	199	-23	620-BKGDS1A	344	
38	5/8/2012 14:28	160	199	-39	620-BKGDS1A	344	
39	5/8/2012 14:28	173	199	-26	620-BKGDS1A	344	
40	5/8/2012 14:29	137	199	-62	620-BKGDS1A	344	
41	5/8/2012 14:29	208	199	9	620-BKGDS1A	344	
42	5/8/2012 14:29	213	199	14	620-BKGDS1A	344	
43	5/8/2012 14:29	210	199	11	620-BKGDS1A	344	
44	5/8/2012 14:29	166	199	-33	620-BKGDS1A	344	
45	5/8/2012 14:29	202	199	3	620-BKGDS1A	344	
46	5/8/2012 14:29	251	199	52	620-BKGDS1A	344	
47	5/8/2012 14:29	207	199	8	620-BKGDS1A	344	
48	5/8/2012 14:30	231	199	32	620-BKGD51A	344	
49	5/8/2012 14:30	189	199	-10	620-BKGDS1A	344	
50	5/8/2012 14:30	213	199	14	620-BKGDS1A	344	
51	5/8/2012 14:30	46	199	-153	620-BKGDS1A	344	
52	5/8/2012 14:30	136	199	-63	620-BKGDS1A	344	
53	5/8/2012 14:31	118	199	-81	620-BKGDS1A	344	
54	5/8/2012 14:31	199	199	0	620-BKGDS1A	344	
55	5/8/2012 14:31	242	199	43	620-BKGDS1A	344	
56	5/8/2012 14:31	203	199	4	620-BKGDS1A	344	
57	5/8/2012 14:31	176	199	-23	620-BKGDS1A	344	
58	5/8/2012 14:31	187	199	-12	620-BKGDS1A	344	
59	5/8/2012 14:31	187	199	-12	620-BKGDS1A	344	
60	5/8/2012 14:31	148	199	-51	620-BKGDS1A	344	F
61	5/8/2012 14:31	186	199	-13	620-BKGDS1A	344	
62	5/8/2012 14:32	180	199	-19	620-BKGDS1A	344	
63	5/8/2012 14:32	141	199	-58	620-BKGDS1A	344	
64	5/8/2012 14:32	126	199	-73	620-BKGDS1A	344	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
65	5/8/2012 14:32	145	199	-54	620-BKGDS1A	344	
66	5/8/2012 14:32	150	199	-49	620-BKGDS1A	344	
67	5/8/2012 14:32	135	199	-64	620-BKGDS1A	344	
68	5/8/2012 14:32	153	199	-46	620-BKGDS1A	344	
69	5/8/2012 14:32	141	199	-58	620-BKGDS1A	344	
70	5/8/2012 14:33	159	199	-40	620-BKGDS1A	344	
71	5/8/2012 14:33	195	199	-4	620-BKGDS1A	344	
72	5/8/2012 14:33	202	199	3	620-BKGDS1A	344	
73	5/8/2012 14:33	209	199	10	620-BKGDS1A	344	
74	5/8/2012 14:33	172	199	-27	620-BKGDS1A	344	
75	5/8/2012 14:33	182	199	-17	620-BKGDS1A	344	
76	5/8/2012 14:33	229	199	30	620-BKGDS1A	344	
77	5/8/2012 14:33	204	199	5	620-BKGDS1A	344	
78	5/8/2012 14:33	222	199	23	620-BKGDS1A	344	
79	5/8/2012 14:34	198	199	-1	620-BKGDS1A	344	
80	5/8/2012 14:34	209	199	10	620-BKGDS1A	344	
81	5/8/2012 14:34	222	199	23	620-BKGDS1A	344	
82	5/8/2012 14:34	169	199	-30	620-BKGDS1A	344	
83	5/8/2012 14:34	152	199	-47	620-BKGDS1A	344	
84	5/8/2012 14:34	184	199	-15	620-BKGDS1A	344	
85	5/8/2012 14:34	177	199	-22	620-BKGDS1A	344	
86	5/8/2012 14:34	197	199	-2	620-BKGDS1A	344	
87	5/8/2012 14:35	293	199	94	620-BKGDS1A	344	
88	5/8/2012 14:35	251	199	52	620-BKGDS1A		
89	5/8/2012 14:35	208				344	
90	5/8/2012 14:35	224	199 199	9	620-BKGDS1A	344	
91				25	620-BKGDS1A	344	
92	5/8/2012 14:35	209	199	10	620-BKGDS1A	344	
	5/8/2012 14:35	164	199	-35	620-BKGDS1A	344	
93	5/8/2012 14:35	182	199	-17	620-BKGDS1A	344	
94	5/8/2012 14:35	196	199	-3	620-BKGDS1A	344	
95	5/8/2012 14:35	226	199	27	620-BKGDS1A	344	
96	5/8/2012 14:36	246	199	47	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 Survey Unit: 23 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
97	5/8/2012 14:36	208	199	9	620-BKGDS1A	344	
98	5/8/2012 14:36	180	199	-19	620-BKGDS1A	344	
99	5/8/2012 14:36	200	199	1	620-BKGDS1A	344	
100	5/8/2012 14:36	189	199	-10	620-BKGDS1A	344	
101	5/8/2012 14:37	77	199	-122	620-BKGDS1A	344	
102	5/8/2012 14:37	100	199	-99	620-BKGDS1A	344	
103	5/8/2012 14:37	184	199	-15	620-BKGDS1A	344	
104	5/8/2012 14:37	187	199	-12	620-BKGDS1A	344	
105	5/8/2012 14:37	174	199	-25	620-BKGDS1A	344	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
106	5/8/2012 14:37	244	199	45	620-BKGDS1A	344	1,
107	5/8/2012 14:37	280	199	81	620-BKGDS1A	344	The same of the sa
108	5/8/2012 14:37	225	199	26	620-BKGDS1A	344	
109	5/8/2012 14:37	221	199	22	620-BKGDS1A	344	
110	5/8/2012 14:38	256	199	57	620-BKGDS1A	344	
111	5/8/2012 14:38	201	199	2	620-BKGDS1A	344	
112	5/8/2012 14:38	251	199	52	620-BKGDS1A	344	
113	5/8/2012 14:38	179	199	-20	620-BKGDS1A	344	
114	5/8/2012 14:38	173	199	-26	620-BKGDS1A	344	
115	5/8/2012 14:38	255	199	56	620-BKGDS1A	344	
116	5/8/2012 14:38	179	199	-20	620-BKGDS1A	344	
117	5/8/2012 14:38	217	199	18	620-BKGDS1A	344	
118	5/8/2012 14:39	173	199	-26	620-BKGDS1A	344	
119	5/8/2012 14:39	227	199	28	620-BKGDS1A	344	
120	5/8/2012 14:39	237	199	38	620-BKGDS1A	344	
121	5/8/2012 14:39	192	199	-7	620-BKGDS1A	344	
122	5/8/2012 14:39	242	199	43	620-BKGDS1A	344	\$1000 Ann - 1100
123	5/8/2012 14:39	217	199	18	620-BKGDS1A	344	
124	5/8/2012 14:39	178	199	-21	620-BKGDS1A	344	
125	5/8/2012 14:39	179	199	-20	620-BKGDS1A	344	
126	5/8/2012 14:39	254	199	55	620-BKGDS1A	344	
127	5/8/2012 14:40	226	199	27	620-BKGDS1A	344	
128	5/8/2012 14:40	199	199	0	620-BKGDS1A	344	



Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

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Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		СРМ	CPM	СРМ	10.	Investigation Level (cpm)	
129	5/8/2012 14:40	159	199	-40	620-BKGDS1A	344	
130	5/8/2012 14:40	171	199	-28	620-BKGDS1A	344	8.0
131	5/8/2012 14:40	185	199	-14	620-BKGDS1A	344	N-0,
132	5/8/2012 14:40	171	199	-28	620-BKGDS1A	344	11 8 21 2
133	5/8/2012 14:40	216	199	17	620-BKGDS1A	344	
134	5/8/2012 14:40	231	199	32	620-BKGDS1A	344	
135	5/8/2012 14:41	180	199	-19	620-BKGDS1A	344	
136	5/8/2012 14:41	198	199	-1	620-BKGDS1A	344	
137	5/8/2012 14:41	167	199	-32	620-BKGDS1A	344	
138	5/8/2012 14:41	161	199	-38	620-BKGDS1A	344	
139	5/8/2012 14:41	180	199	-19	620-BKGDS1A	344	
140	5/8/2012 14:41	205	199	6	620-BKGDS1A	344	
141	5/8/2012 14:41	244	199	45	620-BKGDS1A	344	
142	5/8/2012 14:41	190	199	-9	620-BKGDS1A	344	
143	5/8/2012 14:41	170	199	-29	620-BKGDS1A	344	
144	5/8/2012 14:42	189	199	-10	620-BKGDS1A	344	
145	5/8/2012 14:42	216	199	17	620-BKGDS1A	344	
146	5/8/2012 14:42	192	199	-7	620-BKGDS1A	344	
147	5/8/2012 14:42	183	199	-16	620-BKGDS1A	344	
148	5/8/2012 14:42	178	199	-21	620-BKGDS1A	344	
149	5/8/2012 14:42	207	199	8	620-BKGDS1A	344	
150	5/8/2012 14:42	228	199	29	620-BKGDS1A	344	
151	5/8/2012 14:43	81	199	-118	620-BKGDS1A	344	
152	5/8/2012 14:43	109	199	-90	620-BKGDS1A	344	
153	5/8/2012 14:43	150	199	-49	620-BKGDS1A	344	
154	5/8/2012 14:43	182	199	-17	620-BKGDS1A	344	
155	5/8/2012 14:43	128	199	-71	620-BKGDS1A	344	
156	5/8/2012 14:43	116	199	-83	620-BKGDS1A	344	
157	5/8/2012 14:43	150	199	-49	620-BKGDS1A	344	
158	5/8/2012 14:44	117	199	-82	620-BKGDS1A	344	
159	5/8/2012 14:44	187	199	-12	620-BKGDS1A	344	
160	5/8/2012 14:44	163	199	-36	620-BKGDS1A	344	
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Class: 1 Area: 469.07 m² Survey Unit: 23 Site Area: 707

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
161	5/8/2012 14:44	221	199	22	620-BKGDS1A	344	
162	5/8/2012 14:44	188	199	-11	620-BKGDS1A	344	
163	5/8/2012 14:44	173	199	-26	620-BKGDS1A	344	
164	5/8/2012 14:44	207	199	8	620-BKGDS1A	344	
165	5/8/2012 14:44	167	199	-32	620-BKGDS1A	344	
166	5/8/2012 14:44	175	199	-24	620-BKGDS1A	344	
167	5/8/2012 14:45	165	199	-34	620-BKGDS1A	344	
168	5/8/2012 14:45	146	199	-53	620-BKGDS1A	344	
169	5/8/2012 14:45	184	199	-15	620-BKGDS1A	344	
170	5/8/2012 14:45	211	199	12	620-BKGDS1A	344	
171	5/8/2012 14:45	167	199	-32	620-BKGDS1A	344	
172	5/8/2012 14:45	213	199	14	620-BKGDS1A	344	- 11 100 Iv-
173	5/8/2012 14:45	112	199	-87	620-BKGDS1A	344	
174	5/8/2012 14:45	174	199	-25	620-BKGDS1A	344	
175	5/8/2012 14:46	162	199	-37	620-BKGDS1A	344	
176	5/8/2012 14:46	172	199	-27	620-BKGDS1A	344	
177	5/8/2012 14:46	225	199	26	620-BKGDS1A	344	
178	5/8/2012 14:46	187	199	-12	620-BKGDS1A	344	
179	5/8/2012 14:46	240	199	41	620-BKGDS1A	344	100
180	5/8/2012 14:46	212	199	13	620-BKGDS1A	344	
181	5/8/2012 14:46	215	199	16	620-BKGDS1A	344	
182	5/8/2012 14:46	174	199	-25	620-BKGDS1A	344	
183	5/8/2012 14:46	209	199	10	620-BKGDS1A	344	
184	5/8/2012 14:47	206	199	7	620-BKGDS1A	344	
185	5/8/2012 14:47	267	199	68	620-BKGDS1A	344	
186	5/8/2012 14:47	261	199	62	620-BKGDS1A	344	2.0
187	5/8/2012 14:47	201	199	2	620-BKGDS1A	344	
188	5/8/2012 14:47	195	199	-4	620-BKGDS1A	344	
189	5/8/2012 14:47	195	199	-4	620-BKGDS1A	344	The second second second
190	5/8/2012 14:47	200	199	1	620-BKGDS1A	344	
191	5/8/2012 14:47	199	199	0	620-BKGDS1A	344	
192	5/8/2012 14:48	196	199	-3	620-BKGDS1A	344	



TETRATECH EC, INC. Gamma Scan Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (com)	Comments
193	5/8/2012 14:48	223	199	24	620-BKGDS1A	344	
194	5/8/2012 14:48	227	199	28	620-BKGDS1A	344	
195	5/8/2012 14:48	223	199	24	620-BKGDS1A	344	
196	5/8/2012 14:48	195	199	-4	620-BKGDS1A	344	
197	5/8/2012 14:48	139	199	-60	620-BKGDS1A	344	
198	5/8/2012 14:48	182	199	-17	620-BKGDS1A	344	
199	5/8/2012 14:48	153	199	-46	620-BKGDS1A	344	
200	5/8/2012 14:48	182	199	-17	620-BKGDS1A	344	
201	5/8/2012 14:49	75	199	-124	620-BKGDS1A	344	
202	5/8/2012 14:49	150	199	-49	620-BKGDS1A	344	
203	5/8/2012 14:49	182	199	-17	620-BKGDS1A	344	
204	5/8/2012 14:49	215	199	16	620-BKGDS1A	344	İ
205	5/8/2012 14:49	204	199	5	620-BKGDS1A	344	
206	5/8/2012 14:49	222	199	23	620-BKGDS1A	344	T SOUR OFFICE ON A CO.
207	5/8/2012 14:50	220	199	21	620-BKGDS1A	344	100 000
208	5/8/2012 14:50	157	199	-42	620-BKGDS1A	344	
209	5/8/2012 14:50	181	199	-18	620-BKGDS1A	344	
210	5/8/2012 14:50	223	199	24	620-BKGDS1A	344	
211	5/8/2012 14:50	249	199	50	620-BKGDS1A	344	
212	5/8/2012 14:50	252	199	53	620-BKGDS1A	344	
213	5/8/2012 14:50	202	199	3	620-BKGDS1A	344	
214	5/8/2012 14:50	235	199	36	620-BKGDS1A	344	N. B. Britanista
215	5/8/2012 14:50	262	199	63	620-BKGDS1A	344	Walker State of
216	5/8/2012 14:51	219	199	20	620-BKGDS1A	344	
217	5/8/2012 14:51	186	199	-13	620-BKGDS1A	344	
218	5/8/2012 14:51	182	199	-17	620-BKGDS1A	344	
219	5/8/2012 14:51	244	199	45	620-BKGDS1A	344	
220	5/8/2012 14:51	220	199	21	620-BKGDS1A	344	
221	5/8/2012 14:51	152	199	-47	620-BKGDS1A	344	
222	5/8/2012 14:51	170	199	-29	620-BKGDS1A	344	2.00
223	5/8/2012 14:51	178	199	-21	620-BKGDS1A	344	
224	5/8/2012 14:52	227	199	28	620-BKGDS1A	344	



Class: 1 Area: 469.07 m² Survey Unit: 23 Site Area: 707

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
225	5/8/2012 14:52	197	199	-2	620-BKGDS1A	344		
226	5/8/2012 14:52	188	199	-11	620-BKGDS1A	344		
227	5/8/2012 14:52	191	199	-8	620-BKGDS1A	344		
228	5/8/2012 14:52	184	199	-15	620-BKGDS1A	344		
229	5/8/2012 14:52	207	199	8	620-BKGDS1A	344		
230	5/8/2012 14:52	201	199	2	620-BKGDS1A	344		
231	5/8/2012 14:52	222	199	23	620-BKGDS1A	344		
232	5/8/2012 14:52	221	199	22	620-BKGDS1A	344		
233	5/8/2012 14:53	244	199	45	620-BKGDS1A	344		
234	5/8/2012 14:53	209	199	10	620-BKGD\$1A	344		
235	5/8/2012 14:53	171	199	-28	620-BKGDS1A	344		
236	5/8/2012 14:53	235	199	36	620-BKGDS1A	344],
237	5/8/2012 14:53	269	199	70	620-BKGDS1A	344		1
238	5/8/2012 14:53	222	199	23	620-BKGDS1A	344		Ī
239	5/8/2012 14:53	158	199	-41	620-BKGDS1A	344	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ì
240	5/8/2012 14:53	181	199	-18	620-BKGDS1A	344		ĺ
241	5/8/2012 14:53	184	199	-15	620-BKGDS1A	344		1
242	5/8/2012 14:54	179	199	-20	620-BKGDS1A	344		1
243	5/8/2012 14:54	188	199	-11	620-BKGDS1A	344		1
244	5/8/2012 14:54	213	199	14	620-BKGDS1A	344		1
245	5/8/2012 14:54	179	199	-20	620-BKGDS1A	344		1
246	5/8/2012 14:54	188	199	-11	620-BKGDS1A	344		ĺ
247	5/8/2012 14:54	218	199	19	620-BKGDS1A	344		1
248	5/8/2012 14:54	195	199	-4	620-BKGDS1A	344		1
249	5/8/2012 14:54	182	199	-17	620-BKGDS1A	344		1
250	5/8/2012 14:55	267	199	68	620-BKGDS1A	344	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	ĺ
251	5/8/2012 14:55	129	199	-70	620-BKGDS1A	344		1
252	5/8/2012 14:56	165	199	-34	620-BKGDS1A	344		1
253	5/8/2012 14:56	177	199	-22	620-BKGDS1A	344		Í
254	5/8/2012 14:56	180	199	-19	620-BKGDS1A	344		1
255	5/8/2012 14:56	162	199	-37	620-BKGDS1A	344		1
256	5/8/2012 14:56	142	199	-57	620-BKGDS1A	344		1



TETRATECHEC, INC. Hunters Point Shipyard San Francisco, CA Gamma Scan Measurement Report

Site Area: 707 Survey Unit: 23 Area: 469.07 m² Class: 1

Dda #	Date / Time	Canada	C	61.4	- 1	The state of the s	
rug #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ	Comments
		CPM	CPM	CPM	10	Investigation Level (cpm)	
257	5/8/2012 14:56	166	199	-33	620-BKGDS1A	344	
258	5/8/2012 14:56	229	199	30	620-BKGDS1A	344	
259	5/8/2012 14:56	253	199	54	620-BKGDS1A	344	
260	5/8/2012 14:56	165	199	-34	620-BKGDS1A	344	
261	5/8/2012 14:57	176	199	-23	620-BKGDS1A	344	
262	5/8/2012 14:57	130	199	-69	620-BKGDS1A	344	
263	5/8/2012 14:57	232	199	33	620-BKGDS1A	344	
264	5/8/2012 14:57	234	199	35	620-BKGDS1A	344	
265	5/8/2012 14:57	261	199	62	620-BKGDS1A	344	
266	5/8/2012 14:57	171	199	-28	620-BKGDS1A	344	
267	5/8/2012 14:57						
268		161	199	-38	620-BKGDS1A	344	
_	5/8/2012 14:57	214	199	15	620-BKGDS1A	344	
269	5/8/2012 14:58	175	199	-24	620-BKGDS1A	344	
270	5/8/2012 14:58	190	199	-9	620-BKGDS1A	344	
271	5/8/2012 14:58	192	199	-7	620-BKGDS1A	344	
272	5/8/2012 14:58	192	199	-7	620-BKGDS1A	344	
273	5/8/2012 14:58	159	199	-40	620-BKGDS1A	344	
274	5/8/2012 14:58	223	199	24	620-BKGDS1A	344	
275	5/8/2012 14:58	153	199	-46	620-BKGDS1A	344	
276	5/8/2012 14:58	174	199	-25	620-BKGDS1A	344	
277	5/8/2012 14:58	185	199	-14	620-BKGDS1A	344	
278	5/8/2012 14:59	194	199	-5	620-BKGDS1A	344	
279	5/8/2012 14:59	232	199	33	620-BKGDS1A	344	
280	5/8/2012 14:59	203	199	4	620-BKGDS1A	344	
281	5/8/2012 14:59	245	199	46	620-BKGDS1A	344	
282	5/8/2012 14:59	235	199	36	620-BKGDS1A	344	
283	5/8/2012 14:59	221	199	22	620-BKGDS1A	344	
284	5/8/2012 14:59	283	199	84	620-BKGDS1A	344	
285	5/8/2012 14:59	225	199	26	620-BKGDS1A	344	
286	5/8/2012 14:59	236	199	37	620-BKGDS1A	344	
287	5/8/2012 15:00	235	199	36	620-BKGDS1A	344	
288	5/8/2012 15:00	220	199	21	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 Survey Unit: 23 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
289	5/8/2012 15:00	182	199	-17	620-BKGDS1A	344	
290	5/8/2012 15:00	182	199	-17	620-BKGDS1A	344	
291	5/8/2012 15:00	195	199	-4	620-BKGDS1A	344	
292	5/8/2012 15:00	169	199	-30	620-BKGDS1A	344	
293	5/8/2012 15:00	218	199	19	620-BKGDS1A	344	
294	5/8/2012 15:00	220	199	21	620-BKGDS1A	344	
295	5/8/2012 15:01	207	199	8	620-BKGDS1A	344	
296	5/8/2012 15:01	258	199	59	620-BKGDS1A	344	
297	5/8/2012 15:01	227	199	28	620-BKGDS1A	344	
298	5/8/2012 15:01	276	199	77	620-BKGDS1A	344	
299	5/8/2012 15:01	216	199	17	620-BKGDS1A	344	
300	5/8/2012 15:01	226	199	27	620-BKGDS1A	344	
301	5/8/2012 15:01	75	199	-124	620-BKGDS1A	344	
302	5/8/2012 15:02	125	199	-74	620-BKGDS1A	344	S - 0 - 3 - 12 - 3
303	5/8/2012 15:02	139	199	-60	620-BKGDS1A	344	
304	5/8/2012 15:02	192	199	-7	620-BKGDS1A	344	
305	5/8/2012 15:02	195	199	-4	620-BKGDS1A	344	
306	5/8/2012 15:02	168	199	-31	620-BKGDS1A	344	
307	5/8/2012 15:02	216	199	17	620-BKGDS1A	344	
308	5/8/2012 15:02	218	199	19	620-BKGDS1A	344	
309	5/8/2012 15:02	215	199	16	620-BKGDS1A	344	
310	5/8/2012 15:03	195	199	-4	620-BKGDS1A	344	
311	5/8/2012 15:03	169	199	-30	620-BKGDS1A	344	
312	5/8/2012 15:03	245	199	46	620-BKGDS1A	344	
313	5/8/2012 15:03	222	199	23	620-BKGDS1A	344	
314	5/8/2012 15:03	191	199	-8	620-BKGDS1A	344	
315	5/8/2012 15:03	194	199	-5	620-BKGDS1A	344	
316	5/8/2012 15:03	264	199	65	620-BKGDS1A	344	
317	5/8/2012 15:03	221	199	22	620-BKGDS1A	344	
318	5/8/2012 15:03	221	199	22	620-BKGD\$1A	344	
319	5/8/2012 15:04	187	199	-12	620-BKGDS1A	344	
320	5/8/2012 15:04	124	199	-75	620-BKGDS1A	344	



TETRATECH EC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation	Comments
321	5/8/2012 15:04	170	199	-29	620-BKGDS1A	Level (cpm) 344	
322	5/8/2012 15:04	205	199	6	620-BKGDS1A	344	
323	5/8/2012 15:04	235	199	36	620-BKGDS1A	344	
324	5/8/2012 15:04	200	199	1	620-BKGDS1A	344	
325	5/8/2012 15:04	158	199	-41	620-BKGDS1A	344	
326	5/8/2012 15:04	218	199	19	620-BKGDS1A	344	
327	5/8/2012 15:05	212	199	13	620-BKGDS1A	344	
328	5/8/2012 15:05	200	199	1	620-BKGDS1A	344	
329	5/8/2012 15:05	261	199	62	620-BKGDS1A	344	
330	5/8/2012 15:05	244	199	45	620-BKGDS1A	344	
331	5/8/2012 15:05	195	199	-4	620-BKGDS1A	344	
332	5/8/2012 15:05	139	199	-60	620-BKGDS1A	344	
333	5/8/2012 15:05	214	199	15	620-BKGDS1A	344	
334	5/8/2012 15:05	178	199	-21	620-BKGDS1A	344	
335	5/8/2012 15:05	167	199	-32	620-BKGDS1A	344	
336	5/8/2012 15:06	138	199	-61	620-BKGDS1A	344	<u> </u>
337	5/8/2012 15:06	175	199	-24	620-BKGDS1A	344	
338	5/8/2012 15:06	212	199	13	620-BKGDS1A	344	
339	5/8/2012 15:06	200	199	1	620-BKGDS1A	344	
340	5/8/2012 15:06	223	199	24	620-BKGDS1A	344	
341	5/8/2012 15:06	264	199	65	620-BKGDS1A	344	
342	5/8/2012 15:06	247	199	48	620-BKGDS1A		
343	5/8/2012 15:06	277	199	78		344	
344	5/8/2012 15:06	287			620-BKGDS1A	344	
345	5/8/2012 15:07		199	88	620-BKGDS1A	344	
346		216	199	17	620-BKGDS1A	344	
347	5/8/2012 15:07 5/8/2012 15:07	211	199	12	620-BKGDS1A	344	
347		198	199	-1	620-BKGDS1A	344	
	5/8/2012 15:07	162	199	-37	620-BKGDS1A	344	
349	5/8/2012 15:07	168	199	-31	620-BKGDS1A	344	
350	5/8/2012 15:07	132	199	-67	620-BKGDS1A	344	
351	5/8/2012 15:07	76	199	-123	620-BKGDS1A	344	
352	5/8/2012 15:08	79	199	-120	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 Survey Unit: 23 Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	-
353	5/8/2012 15:08	155	199	-44	620-BKGDS1A	344		
354	5/8/2012 15:08	240	199	41	620-BKGDS1A	344		
355	5/8/2012 15:08	218	199	19	620-BKGDS1A	344		
356	5/8/2012 15:08	287	199	88	620 BKGDS1A	344		
357	5/8/2012 15:08	180	199	-19	620-BKGDS1A	344		
358	5/8/2012 15:08	237	199	38	620-BKGDS1A	344		
359	5/8/2012 15:08	193	199	-6	620-BKGDS1A	344		
360	5/8/2012 15:09	173	199	-26	620-BKGDS1A	344		
361	5/8/2012 15:09	219	199	20	620-BKGDS1A	344		
362	5/8/2012 15:09	187	199	-12	620-BKGDS1A	344		
363	5/8/2012 15:09	165	199	-34	620-BKGDS1A	344		
364	5/8/2012 15:09	190	199	-9	620-BKGDS1A	344	州 李县25900年—	
365	5/8/2012 15:09	180	199	-19	620-BKGDS1A	344		
366	5/8/2012 15:09	172	199	-27	620-BKGDS1A	344	200 000 000 000 000	1
367	5/8/2012 15:09	202	199	3	620-BKGDS1A	344		
368	5/8/2012 15:09	176	199	-23	620-BKGDS1A	344]
369	5/8/2012 15:10	198	199	-1	620-BKGDS1A	344		1
370	5/8/2012 15:10	154	199	-45	620-BKGDS1A	344		Ī
371	5/8/2012 15:10	168	199	-31	620-BKGDS1A	344		1
372	5/8/2012 15:10	212	199	13	620-BKGDS1A	344		1
373	5/8/2012 15:10	231	199	32	620-BKGDS1A	344]
374	5/8/2012 15:10	269	199	70	620-BKGDS1A	344		1
375	5/8/2012 15:10	181	199	-18	620-BKGDS1A	344		1
376	5/8/2012 15:10	161	199	-38	620-BKGDS1A	344		1
377	5/8/2012 15:11	177	199	-22	620-BKGDS1A	344		1
378	5/8/2012 15:11	183	199	-16	620-BKGDS1A	344		1
379	5/8/2012 15:11	152	199	-47	620-BKGDS1A	344		٦
380	5/8/2012 15:11	162	199	-37	620-BKGDS1A	344	1 22 32	1
381	5/8/2012 15:11	145	199	-54	620-BKGDS1A	344	The same of the sa	1
382	5/8/2012 15:11	156	199	-43	620-BKGDS1A	344		٦
383	5/8/2012 15:11	217	199	18	620-BKGD\$1A	344		Ī
			199	-29	620-BKGDS1A	344		1
384	5/8/2012 15:11	170	199	-29	PZU-BKGD21A	344	a freezewa e a company to the party	



TETRATECH EC. INC. Gamma Scan Measurement Report San Francisco, CA

Survey Unit: 23 Class: 1 Area: 469.07 m² Site Area: 707

385 5/8/2012 15:11 202 199 3 620-BKGDS1A 344 386 5/8/2012 15:12 205 199 6 620-BKGDS1A 344 387 5/8/2012 15:12 156 199 -43 620-BKGDS1A 344 388 5/8/2012 15:12 163 199 -36 620-BKGDS1A 344 389 5/8/2012 15:12 149 199 -50 620-BKGDS1A 344 390 5/8/2012 15:12 180 199 -19 620-BKGDS1A 344 391 5/8/2012 15:12 150 199 49 620-BKGDS1A 344 392 5/8/2012 15:12 150 199 34 620-BKGDS1A 344 393 5/8/2012 15:12 188 199 -11 620-BKGDS1A 344 394 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 395 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 396 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 397 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 398 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 399 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 400 5/8/2012 15:13 221 199 22 620-BKGDS1A 344 400 5/8/2012 15:13 219 199 20 620-BKGDS1A 344 401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 403 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 407 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 407 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 408 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 409 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 407 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 408 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 409 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 400 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 401 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 402 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 403 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344 404 5/9/2012 7:36 102 199 -79 620-BKGDS1A 344	Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
386 5/8/2012 15:12 205 199 6 620-BKGDS1A 344 387 5/8/2012 15:12 156 199 -43 620-BKGDS1A 344 388 5/8/2012 15:12 163 199 -36 620-BKGDS1A 344 389 5/8/2012 15:12 149 199 -50 620-BKGDS1A 344 390 5/8/2012 15:12 180 199 -19 620-BKGDS1A 344 391 5/8/2012 15:12 150 199 -49 620-BKGDS1A 344 392 5/8/2012 15:12 165 199 -34 620-BKGDS1A 344 393 5/8/2012 15:13 228 199 -29 620-BKGDS1A 344 394 5/8/2012 15:13 228 199 -29 620-BKGDS1A 344 395 5/8/2012 15:13 228 199 -29 620-BKGDS1A 344 396 5/8/2012 15:13 228 199 -29 620-BKGDS1A 344	385	5/8/2012 15:11				620-BKGDS1A		
388 5/8/2012 15:12 163 199 -36 620-BKGD51A 344 389 5/8/2012 15:12 149 199 -50 620-BKGD51A 344 390 5/8/2012 15:12 180 199 -19 620-BKGD51A 344 391 5/8/2012 15:12 150 199 -49 620-BKGD51A 344 392 5/8/2012 15:12 165 199 -34 620-BKGD51A 344 393 5/8/2012 15:12 188 199 -11 620-BKGD51A 344 394 5/8/2012 15:13 228 199 29 620-BKGD51A 344 395 5/8/2012 15:13 228 199 29 620-BKGD51A 344 396 5/8/2012 15:13 228 199 29 620-BKGD51A 344 397 5/8/2012 15:13 228 199 29 620-BKGD51A 344 398 5/8/2012 15:13 228 199 29 620-BKGD51A 344 398 5/8/2012 15:13 190 199 -9 620-BKGD51A 344 399 5/8/2012 15:13 190 199 -9 620-BKGD51A 344 390 5/8/2012 15:13 221 199 22 620-BKGD51A 344 390 5/8/2012 15:13 219 199 20 620-BKGD51A 344 400 5/8/2012 7:36 47 199 -152 620-BKGD51A 344 401 5/9/2012 7:36 96 199 -103 620-BKGD51A 344 402 5/9/2012 7:36 167 199 -32 620-BKGD51A 344 403 5/9/2012 7:36 167 199 -32 620-BKGD51A 344 404 5/9/2012 7:37 160 199 -9 620-BKGD51A 344 405 5/9/2012 7:37 176 199 -32 620-BKGD51A 344 406 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 407 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 408 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 400 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 401 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 402 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 403 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 404 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 405 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 406 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 407 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 408 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 410 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 411 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 412 5/9/2012 7:38 167 199 -30 620-BKGD51A 344 413 5/9/2012 7:38 167 199 -30 620-BKGD51A 344 414 5/9/2012 7:38 167 199 -30 620-BKGD51A 344 415 5/9/2012 7:38 167 199 -30 620-BKGD51A 344 415 5/9/2012 7:38 167 199 -30 620-BKGD51A 344 415 5/9/2012 7:38 167 199	386	5/8/2012 15:12	205	199	6	620-BKGDS1A	344	
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391	389	5/8/2012 15:12	149	199	-50	620-BKGDS1A	344	
392 5/8/2012 15:12 165 199 .34 620-BKGD51A 344 393 5/8/2012 15:13 228 199 .11 620-BKGD51A 344 394 5/8/2012 15:13 228 199 29 620-BKGD51A 344 395 5/8/2012 15:13 228 199 29 620-BKGD51A 344 396 5/8/2012 15:13 228 199 29 620-BKGD51A 344 397 5/8/2012 15:13 228 199 29 620-BKGD51A 344 398 5/8/2012 15:13 228 199 29 620-BKGD51A 344 399 5/8/2012 15:13 221 199 20 620-BKGD51A 344 400 5/8/2012 15:13 221 199 20 620-BKGD51A 344 401 5/9/2012 7:36 47 199 -152 620-BKGD51A 344 402 5/9/2012 7:36 96 199 -103 620-BKGD51A 344 403 5/9/2012 7:36 167 199 -32 620-BKGD51A 344 404 5/9/2012 7:36 102 199 -97 620-BKGD51A 344 405 5/9/2012 7:36 102 199 -97 620-BKGD51A 344 406 5/9/2012 7:37 110 199 -89 620-BKGD51A 344 407 5/9/2012 7:37 110 199 -89 620-BKGD51A 344 408 5/9/2012 7:37 160 199 7 620-BKGD51A 344 409 5/9/2012 7:37 184 199 -15 620-BKGD51A 344 409 5/9/2012 7:37 186 199 -23 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -15 620-BKGD51A 344 409 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 410 5/9/2012 7:37 180 199 -19 620-BKGD51A 344 411 5/9/2012 7:37 189 199 -10 620-BKGD51A 344 412 5/9/2012 7:37 189 199 -10 620-BKGD51A 344 413 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 414 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 415 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 416 5/9/2012 7:37 189 199 -10 620-BKGD51A 344 417 5/9/2012 7:37 189 199 -30 620-BKGD51A 344 418 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 419 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 410 5/9/2012 7:37 169 199 -30 620-BKGD51A 344 411 5/9/2012 7:37 169 199 -30 620-BKGD51A 344	390	5/8/2012 15:12	180	199	-19	620-BKGDS1A	344	
393	391	5/8/2012 15:12	150	199	-49	620-BKGDS1A	344	
394 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 395 5/8/2012 15:13 227 199 28 620-BKGDS1A 344 396 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 397 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 398 5/8/2012 15:13 190 199 -9 620-BKGDS1A 344 399 5/8/2012 15:13 221 199 22 620-BKGDS1A 344 400 5/8/2012 15:13 219 199 20 620-BKGDS1A 344 401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 403 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 180 199 -15 620-BKGDS1A 344 409 5/9/2012 7:37 180 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 415 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 416 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 417 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 418 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 419 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 410 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 411 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344	392	5/8/2012 15:12	165	199	-34	620-BKGDS1A	344	24
395	393	5/8/2012 15:12	188	199	-11	620-BKGDS1A	344	
396 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 397 5/8/2012 15:13 228 199 29 620-BKGDS1A 344 398 5/8/2012 15:13 190 199 -9 620-BKGDS1A 344 399 5/8/2012 15:13 221 199 22 620-BKGDS1A 344 400 5/8/2012 15:13 219 199 20 620-BKGDS1A 344 401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 96 199 -103 620-BKGDS1A 344 403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 176 199 -15 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -15 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 416 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344 417 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344 418 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344 419 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344 410 5/9/2012 7:37 189 199 -30 620-BKGDS1A 344	394	5/8/2012 15:13	228	199	29	620-BKGDS1A	344	
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399 5/8/2012 15:13 221 199 22 620-BKGDS1A 344 400 5/8/2012 15:13 219 199 20 620-BKGDS1A 344 401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 96 199 -103 620-BKGDS1A 344 403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 411 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 416 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 417 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 418 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 419 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344	397	5/8/2012 15:13	228	199	29	620-BKGDS1A	344	
400 5/8/2012 15:13 219 199 20 620-BKGDS1A 344 401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 96 199 -103 620-BKGDS1A 344 403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 409 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 411 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 412 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 416 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 417 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 418 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 419 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344	398	5/8/2012 15:13	190	199	-9	620-BKGDS1A	344	
401 5/9/2012 7:36 47 199 -152 620-BKGDS1A 344 402 5/9/2012 7:36 96 199 -103 620-BKGDS1A 344 403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 411 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 412 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 413 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	399	5/8/2012 15:13	221	199	22	620-BKGDS1A	344	
402 5/9/2012 7:36 96 199 -103 620-BKGDS1A 344 403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 411 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 412 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 413 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344	400	5/8/2012 15:13	219	199	20	620-BKGDS1A	344	
403 5/9/2012 7:36 150 199 -49 620-BKGDS1A 344 404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	401	5/9/2012 7:36	47	199	-152	620-BKGDS1A	344	400000000000000000000000000000000000000
404 5/9/2012 7:36 167 199 -32 620-BKGDS1A 344 405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	402	5/9/2012 7:36	96	199	-103	620-BKGDS1A	344	200000000000000000000000000000000000000
405 5/9/2012 7:36 102 199 -97 620-BKGDS1A 344 406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	403	5/9/2012 7:36	150	199	-49	620-BKGDS1A	344	
406 5/9/2012 7:37 110 199 -89 620-BKGDS1A 344 407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	404	5/9/2012 7:36	167	199	-32	620-BKGDS1A	344	
407 5/9/2012 7:37 206 199 7 620-BKGDS1A 344 408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	405	5/9/2012 7:36	102	199	-97	620-BKGDS1A	344	
408 5/9/2012 7:37 176 199 -23 620-BKGDS1A 344 409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	406	5/9/2012 7:37	110	199	-89	620-BKGDS1A	344	
409 5/9/2012 7:37 184 199 -15 620-BKGDS1A 344 410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	407	5/9/2012 7:37	206	199	7	620-BKGDS1A	344	
410 5/9/2012 7:37 225 199 26 620-BKGDS1A 344 411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	408	5/9/2012 7:37	176	199	-23	620-BKGDS1A	344	
411 5/9/2012 7:37 180 199 -19 620-BKGDS1A 344 412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	409	5/9/2012 7:37	184	199	-15	620-BKGDS1A	344	
412 5/9/2012 7:37 189 199 -10 620-BKGDS1A 344 413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	410	5/9/2012 7:37	225	199	26	620-BKGDS1A	344	
413 5/9/2012 7:37 169 199 -30 620-BKGDS1A 344 414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	411	5/9/2012 7:37	180	199	-19	620-BKGDS1A	344	
414 5/9/2012 7:37 200 199 1 620-BKGDS1A 344 415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	412	5/9/2012 7:37	189	199	-10	620-BKGDS1A	344	
415 5/9/2012 7:38 167 199 -32 620-BKGDS1A 344	413	5/9/2012 7:37	169	199	-30	620-BKGDS1A	344	
	414	5/9/2012 7:37	200	199	1	620-BKGDS1A	344	
416 5/9/2012 7:38 216 199 17 620-BKGDS1A 344	415	5/9/2012 7:38	167	199	-32	620-BKGDS1A	344	
	416	5/9/2012 7:38	216	199	17	620-BKGDS1A	344	



Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3g Investigation Level (cpm)	Comments
417	5/9/2012 7:38	249	199	50	620-BKGDS1A	344	Authorities Services
418	5/9/2012 7:38	241	199	42	620-BKGDS1A	344	
419	5/9/2012 7:38	221	199	22	620-BKGDS1A	344	
420	5/9/2012 7:38	231	199	32	620-BKGDS1A	344	
421	5/9/2012 7:38	231	199	32	620-BKGDS1A	344	
422	5/9/2012 7:38	270	199	71	620-BKGDS1A	344	
423	5/9/2012 7:39	251	199	52	620-BKGDS1A	344	
424	5/9/2012 7:39	252	199	53	620-BKGDS1A	344	
425	5/9/2012 7:39	202	199	3	620-BKGDS1A	344	
426	5/9/2012 7:39	244	199	45	620-BKGDS1A	344	
427	5/9/2012 7:39	228	199	29	620-BKGDS1A	344	
428	5/9/2012 7:39	196	199	-3	620-BKGDS1A	344	
429	5/9/2012 7:39	184	199	-15	620-BKGDS1A	344	765 13
430	5/9/2012 7:39	224	199	25	620-BKGDS1A	344	
431	5/9/2012 7:39	249	199	50	620-BKGDS1A	344	
432	5/9/2012 7:40	214	199	15	620-BKGDS1A	344	
433	5/9/2012 7:40	189	199	-10	620-BKGDS1A	344	
434	5/9/2012 7:40	222	199	23	620-BKGDS1A	344	
435	5/9/2012 7:40	259	199	60	620-BKGDS1A	344	
436	5/9/2012 7:40	255	199	56	620-BKGDS1A	344	2000 200
437	5/9/2012 7:40	233	199	34	620-BKGDS1A	344	
438	5/9/2012 7:40	209	199	10	620-BKGDS1A	344	
439	5/9/2012 7:40	223	199	24	620-BKGDS1A	344	
440	5/9/2012 7:41	255	199	56	620-BKGDS1A	344	
441	5/9/2012 7:41	197	199	-2	620-BKGDS1A	344	
442	5/9/2012 7:41	229	199	30	620-BKGDS1A	344	
443	5/9/2012 7:41	285	199	86	620 BKGDS1A	344	
444	5/9/2012 7:41	238	199	39	620-BKGDS1A	344	
445	5/9/2012 7:41	178	199	-21	620-BKGDS1A	344	17.95 0-1975 - 17.5
446	5/9/2012 7:41	164	199	-35	620-BKGDS1A	344	
447	5/9/2012 7:41	183	199	-16	620-BKGDS1A	344	
448	5/9/2012 7:41	211	199	12	620-BKGDS1A	344	



Site Area: 707 Survey Unit: 23 Area: 469.07 m² Class: 1

Rdg #	Date / Time	Gross	Gamma	Net	Background	3σ	Comments
		Gamma	Background	Gamma	ID*	Investigation	Commence
		СРМ	СРМ	CPM		Level (cpm)	
449	5/9/2012 7:42	195	199	-4	620-BKGDS1A	344	
450	5/9/2012 7:42	212	199	13	620-BKGDS1A	344	
451	5/9/2012 7:42	114	199	-85	620-BKGDS1A	344	
452	5/9/2012 7:42	191	199	-8	620-BKGDS1A	344	
453	5/9/2012 7:42	170	199	-29	620-BKGDS1A	344	
454	5/9/2012 7:42	155	199	-44	620-BKGDS1A	344	65.0N
455	5/9/2012 7:43	142	199	-57	620-BKGDS1A	344	
456	5/9/2012 7:43	208	199	9	620-BKGDS1A	344	
457	5/9/2012 7:43	174	199	-25	620-BKGDS1A	344	
458	5/9/2012 7:43	181	199	-18	620-BKGDS1A	344	
459	5/9/2012 7:43	172	199	-27	620-BKGDS1A	344	
460	5/9/2012 7:43	246	199	47	620-BKGDS1A	344	
461	5/9/2012 7:43	184	199	-15	620-BKGDS1A	344	
462	5/9/2012 7:43	245	199	46	620-BKGDS1A	344	
463	5/9/2012 7:44	229	199	30	620-BKGDS1A	344	
464	5/9/2012 7:44	183	199	-16	620-BKGDS1A	344	
465	5/9/2012 7:44	205	199	6	620-BKGDS1A	344	
466	5/9/2012 7:44	147	199	-52	620-BKGDS1A	344	
467	5/9/2012 7:44	178	199	-21	620-BKGDS1A	344	
468	5/9/2012 7:44	286	199	87	620-BKGDS1A	344	
469	5/9/2012 7:44	209	199	10	620-BKGDS1A	344	
470	5/9/2012 7:44	242	199	43	620-BKGDS1A	344	
471	5/9/2012 7:44	232	199	33	620-BKGDS1A	344	
472	5/9/2012 7:45	232	199	33	620-BKGDS1A	344	
473	5/9/2012 7:45	207	199	8	620-BKGDS1A	344	
474	5/9/2012 7:45	192	199	-7	620-BKGDS1A	344	
475	5/9/2012 7:45	214	199	15	620-BKGDS1A	344	- 12 TT - 12 ACC
476	5/9/2012 7:45	222	199	23	620-BKGDS1A	344	
477	5/9/2012 7:45	196	199	-3	620-BKGDS1A	344	
478	5/9/2012 7:45	219	199	20	620-BKGDS1A	344	False
479	5/9/2012 7:45	166	199	-33	620-BKGDS1A	344	
480	5/9/2012 7:46	170	199	-29	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 **Survey Unit: 23** Class: 1

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Kag #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
481	5/9/2012 7:46	165	199	-34	620-BKGDS1A	344	160 - 140 -	
482	5/9/2012 7:46	173	199	-26	620-BKGDS1A	344		
483	5/9/2012 7:46	177	199	-22	620-BKGDS1A	344		
484	5/9/2012 7:46	218	199	19	620-BKGDS1A	344		
485	5/9/2012 7:46	215	199	16	620-BKGDS1A	344		
486	5/9/2012 7:46	210	199	11	620-BKGDS1A	344		
487	5/9/2012 7:46	180	199	-19	620-BKGDS1A	344		
488	5/9/2012 7:46	235	199	36	620-BKGDS1A	344		
489	5/9/2012 7:47	243	199	44	620-BKGDS1A	344		
490	5/9/2012 7:47	141	199	-58	620-BKGDS1A	344		
491	5/9/2012 7:47	165	199	-34	620-BKGDS1A	344		
492	5/9/2012 7:47	173	199	-26	620-BKGDS1A	344	W = (8.50-0	
493	5/9/2012 7:47	184	199	-15	620-BKGD51A	344	7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7	
494	5/9/2012 7:47	207	199	8	620-BKGDS1A	344		
495	5/9/2012 7:47	204	199	5	620-BKGDS1A	344		
496	5/9/2012 7:47	145	199	-54	620-BKGDS1A	344		l
497	5/9/2012 7:47	150	199	-49	620-BKGDS1A	344		
498	5/9/2012 7:48	209	199	10	620-BKGDS1A	344		İ
499	5/9/2012 7:48	217	199	18	620-BKGDS1A	344		
500	5/9/2012 7:48	203	199	4	620-BKGDS1A	344		Ì
501	5/9/2012 7:48	91	199	-108	620-BKGDS1A	344		ĺ
502	5/9/2012 7:48	152	199	-47	620-BKGDS1A	344		ĺ
503	5/9/2012 7:48	155	199	-44	620-BKGDS1A	344		ĺ
504	5/9/2012 7:49	253	199	54	620-BKGDS1A	344		1
505	5/9/2012 7:49	239	199	40	620-BKGDS1A	344		1
506	5/9/2012 7:49	225	199	26	620-BKGDS1A	344		ĺ
507	5/9/2012 7:49	215	199	16	620-BKGDS1A	344		1
508	5/9/2012 7:49	207	199	8	620-BKGDS1A	344	The state of the s	ĺ
509	5/9/2012 7:49	287	199	88	620-BKGDS1A	344	1000	1
510	5/9/2012 7:49	237	199	38	620-BKGDS1A	344		1
511	5/9/2012 7:49	178	199	-21	620-BKGDS1A	344		K
512	5/9/2012 7:49	121	199	-78	620-BKGDS1A	344		i



Site Area: 707 Survey Unit: 23 Area: 469.07 m² Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
513	5/9/2012 7:50	144	199	-55	620-BKGDS1A	344	
514	5/9/2012 7:50	169	199	-30	620-BKGDS1A	344	
515	5/9/2012 7:50	175	199	-24	620-BKGDS1A	344	
516	5/9/2012 7:50	210					
			199	11	620-BKGDS1A	344	I A CONTRACTOR OF THE CONTRACT
517	5/9/2012 7:50	227	199	28	620-BKGDS1A	344	
518	5/9/2012 7:50	209	199	10	620-BKGDS1A	344	
519	5/9/2012 7:50	182	199	-17	620-BKGDS1A	344	
520	5/9/2012 7:50	188	199	-11	620-BKGDS1A	344	
521	5/9/2012 7:51	229	199	30	620-BKGDS1A	344	
522	5/9/2012 7:51	223	199	24	620-BKGDS1A	344	
523	5/9/2012 7:51	245	199	46	620-BKGDS1A	344	
524	5/9/2012 7:51	270	199	71	620-BKGDS1A	344	
525	5/9/2012 7:51	239	199	40	620-BKGDS1A	344	
526	5/9/2012 7:51	297	199	98	620-BKGDS1A	344	
527	5/9/2012 7:51	204	199	5	620-BKGDS1A	344	
528	5/9/2012 7:51	207	199	8	620-BKGDS1A	344	
529	5/9/2012 7:51	272	199	73	620-BKGDS1A	344	
530	5/9/2012 7:52	289	199	90	620-BKGDS1A	344	
531	5/9/2012 7:52	299	199	100	620-BKGDS1A	344	
532	5/9/2012 7:52	276	199	77	620-BKGDS1A	344	
533	5/9/2012 7:52	242	199	43	620-BKGDS1A	344	
534	5/9/2012 7:52	219	199	20	620-BKGDS1A	344	
535	5/9/2012 7:52	215	199	16	620-BKGDS1A	344	
536	5/9/2012 7:52	202	199	3	620-BKGDS1A	344	
537	5/9/2012 7:52	204	199	5	620-BKGDS1A	344	
538	5/9/2012 7:52	204	199	5	620-BKGDS1A	344	
539	5/9/2012 7:53	148	199	-51	620-BKGDS1A	344	
540	5/9/2012 7:53	175	199	-24	620-BKGDS1A	344	
541	5/9/2012 7:53	124	199	-75	620-BKGDS1A	344	
542	5/9/2012 7:53	181	199	-18	620-BKGDS1A	344	
543	5/9/2012 7:53	183	199	-16	620-BKGDS1A	344	
544	5/9/2012 7:53	258	199	59	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 Survey Unit: 23 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
545	5/9/2012 7:53	225	199	26	620-BKGDS1A	344	
546	5/9/2012 7:53	192	199	-7	620-BKGDS1A	344	
547	5/9/2012 7:54	136	199	-63	620-BKGDS1A	344	
548	5/9/2012 7:54	163	199	-36	620-BKGDS1A	344	
549	5/9/2012 7:54	137	199	-62	620-BKGDS1A	344	
550	5/9/2012 7:54	172	199	-27	620-BKGD\$1A	344	
551	5/9/2012 7:54	122	199	-77	620-BKGDS1A	344	
552	5/9/2012 7:54	181	199	-18	620-BKGDS1A	344	
553	5/9/2012 7:55	215	199	16	620-BKGDS1A	344	
554	5/9/2012 7:55	208	199	9	620-BKGDS1A	344	
555	5/9/2012 7:55	158	199	-41	620-BKGDS1A	344	
556	5/9/2012 7:55	140	199	-59	620-BKGDS1A	344	
557	5/9/2012 7:55	130	199	-69	620-BKGDS1A	344	
558	5/9/2012 7:55	105	199	-94	620-BKGDS1A	344	(g 1) (g
559	5/9/2012 7:55	219	199	20	620-BKGDS1A	344	
560	5/9/2012 7:55	190	199	-9	620-BKGDS1A	344	
561	5/9/2012 7:55	138	199	-61	620-BKGDS1A	344	
562	5/9/2012 7:56	163	199	-36	620-BKGDS1A	344	
563	5/9/2012 7:56	221	199	22	620-BKGDS1A	344	
564	5/9/2012 7:56	203	199	4	620-BKGDS1A	344	
565	5/9/2012 7:56	186	199	-13	620-BKGDS1A	344	
566	5/9/2012 7:56	217	199	18	620-BKGDS1A	344	
567	5/9/2012 7:56	220	199	21	620-BKGDS1A	344	
568	5/9/2012 7:56	171	199	-28	620-BKGD51A	344	
569	5/9/2012 7:56	191	199	-8	620-BKGDS1A	344	
570	5/9/2012 7:57	225	199	26	620-BKGDS1A	344	
571	5/9/2012 7:57	255	199	56	620-BKGDS1A	344	
572	5/9/2012 7:57	263	199	64	620-BKGDS1A	344	100
573	5/9/2012 7:57	238	199	39	620-BKGDS1A	344	22.50
574	5/9/2012 7:57	207	199	8	620-BKGDS1A	344	
575	5/9/2012 7:57	246	199	47	620-BKGDS1A	344	
576	5/9/2012 7:57	214	199	15	620-BKGDS1A	344	



Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
577	5/9/2012 7:57	174	199		COO BYCDCAA		
		_		-25	620-BKGDS1A	344	
578	5/9/2012 7:57	170	199	-29	620-BKGDS1A	344	
579	5/9/2012 7:58	175	199	-24	620-BKGDS1A	344	
580	5/9/2012 7:58	184	199	-15	620-BKGDS1A	344	
581	5/9/2012 7:58	197	199	-2	620-BKGDS1A	344	
582	5/9/2012 7:58	195	199	-4	620-BKGDS1A	344	
583	5/9/2012 7:58	226	199	27	620-BKGDS1A	344	
584	5/9/2012 7:58	224	199	25	620-BKGDS1A	344	212
585	5/9/2012 7:58	195	199	-4	620-BKGDS1A	344	
586	5/9/2012 7:58	168	199	-31	620-BKGDS1A	344	
587	5/9/2012 7:59	204	199	5	620-BKGDS1A	344	
588	5/9/2012 7:59	208	199	9	620-BKGDS1A	344	
589	5/9/2012 7:59	193	199	-6	620-BKGDS1A	344	
590	5/9/2012 7:59	140	199	-59	620-BKGDS1A	344	
591	5/9/2012 7:59	194	199	-5	620-BKGDS1A	344	
592	5/9/2012 7:59	189	199	-10	620-BKGDS1A	344	
593	5/9/2012 7:59	184	199	-15	620-BKGDS1A	344	
594	5/9/2012 7:59	169	199	-30	620-BKGDS1A	344	
595	5/9/2012 7:59	211	199	12	620-BKGDS1A	344	
596	5/9/2012 8:00	180	199	-19	620-BKGDS1A	344	
597	5/9/2012 8:00	177	199	-22	620-BKGDS1A	344	
598	5/9/2012 8:00	177	199	-22	620-BKGDS1A	344	
599	5/9/2012 8:00	215	199	16	620-BKGDS1A	344	
600	5/9/2012 8:00	232	199	33	620-BKGDS1A	344	
601	5/9/2012 8:00	114	199	-85	620-BKGDS1A		
602	5/9/2012 8:01	171	199	-28	620-BKGDS1A	344	
603	5/9/2012 8:01	178	199				
604	5/9/2012 8:01			-21	620-BKGDS1A	344	
605		151	199	-48	620-BKGDS1A	344	
_	5/9/2012 8:01	189	199	-10	620-BKGDS1A	344	
606	5/9/2012 8:01	193	199	-6	620-BKGDS1A	344	
607	5/9/2012 8:01	178	199	-21	620-BKGDS1A	344	
608	5/9/2012 8:01	231	199	32	620-BKGDS1A	344	19



Area: 469.07 m² Survey Unit: 23 Class: 1 Site Area: 707

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	30 Investigation Level (cpm)	Comments
609	5/9/2012 8:01	236	199	37	620-BKGDS1A	344	
610	5/9/2012 8:01	227	199	28	620-BKGDS1A	344	
611	5/9/2012 8:02	180	199	-19	620-BKGDS1A	344	
612	5/9/2012 8:02	181	199	-18	620-BKGDS1A	344	
613	5/9/2012 8:02	211	199	12	620-BKGDS1A	344	
614	5/9/2012 8:02	187	199	-12	620-BKGDS1A	344	
615	5/9/2012 8:02	256	199	57	620-BKGDS1A	344	
616	5/9/2012 8:02	168	199	-31	620-BKGDS1A	344	
617	5/9/2012 8:02	134	199	-65	620-BKGDS1A	344	
618	5/9/2012 8:02	221	199	22	620-BKGDS1A	344	
619	5/9/2012 8:03	234	199	35	620-BKGDS1A	344	·
620	5/9/2012 8:03	231	199	32	620-BKGDS1A	344	
621	5/9/2012 8:03	190	199	-9	620-BKGDS1A	344	
622	5/9/2012 8:03	179	199	-20	620-BKGDS1A	344	
623	5/9/2012 8:03	153	199	-46	620-BKGDS1A	344	
624	5/9/2012 8:03	191	199	-8	620-BKGDS1A	344	
625	5/9/2012 8:03	175	199	-24	620-BKGDS1A	344	
626	5/9/2012 8:03	149	199	-50	620-BKGDS1A	344	
627	5/9/2012 8:03	205	199	6	620-BKGDS1A	344	
628	5/9/2012 8:04	238	199	39	620-BKGDS1A	344	
629	5/9/2012 8:04	225	199	26	620-BKGDS1A	344	
630	5/9/2012 8:04	210	199	11	620-BKGDS1A	344	
631	5/9/2012 8:04	197	199	-2	620-BKGDS1A	344	
632	5/9/2012 8:04	170	199	-29	620-BKGDS1A	344	The state of the s
633	5/9/2012 8:04	230	199	31	620-BKGDS1A	344	
634	5/9/2012 8:04	227	199	28	620-BKGDS1A	344	
635	5/9/2012 8:04	195	199	-4	620-BKGDS1A	344	
636	5/9/2012 8:05	202	199	3	620-BKGDS1A	344	
637	5/9/2012 8:05	212	199	13	620-BKGDS1A	344	
638	5/9/2012 8:05	164	199	-35	620-BKGDS1A	344	1884 March 1991 1 1 1
639	5/9/2012 8:05	146	199	-53	620-BKGDS1A	344	
640	5/9/2012 8:05	207	199	8	620-BKGDS1A	344	Line Company



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 23 Area: 469.07 m² Class: 1

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Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
641	5/9/2012 8:05	197	199	-2	620-BKGDS1A	344	
642	5/9/2012 8:05	191	199	-8	620-BKGDS1A	344	
643	5/9/2012 8:05	180	199	-19	620-BKGDS1A	344	
644	5/9/2012 8:05	215	199	16	620-BKGDS1A	344	
645	5/9/2012 8:06	151	199	-48	620-BKGDS1A	344	
646	5/9/2012 8:06	193	199	-6	620-BKGDS1A	344	
647	5/9/2012 8:06	288	199	89	620-BKGDS1A	344	
648	5/9/2012 8:06	237	199	38	620-BKGDS1A	344	
649	5/9/2012 8:06	255	199	56	620-BKGDS1A	344	
650	5/9/2012 8:06	272	199	73	620-BKGDS1A	344	
651	5/9/2012 8:07	110	199	-89	620-BKGDS1A	344	
652	5/9/2012 8:07	114	199	-85	620-BKGDS1A	344	
653	5/9/2012 8:07	158	199	-41	620-BKGDS1A	344	
654	5/9/2012 8:07	131	199	-68	620-BKGDS1A	344	10/24
655	5/9/2012 8:07	172	199	-27	620-BKGDS1A	344	1 02 - 11
656	5/9/2012 8:07	188	199	-11	620-BKGDS1A	344	
657	5/9/2012 8:07	252	199	53	620-BKGDS1A	344	
658	5/9/2012 8:08	177	199	-22	620-BKGDS1A	344	
659	5/9/2012 8:08	186	199	-13	620-BKGDS1A	344	
660	5/9/2012 8:08	178	199	-21	620-BKGDS1A	344	
661	5/9/2012 8:08	188	199	-11	620-BKGDS1A	344	
662	5/9/2012 8:08	164	199	-35	620-BKGDS1A	344	
663	5/9/2012 8:08	153	199	-46	620-BKGDS1A	344	
664	5/9/2012 8:08	202	199	3	620-BKGDS1A	344	
665	5/9/2012 8:08	207	199	8	620-BKGDS1A	344	
666	5/9/2012 8:09	218	199	19	620-BKGDS1A	344	
667	5/9/2012 8:09	215	199	16	620-BKGDS1A	344	- 16
668	5/9/2012 8:09	199	199	0	620-BKGDS1A	344	The state of the s
669	5/9/2012 8:09	211	199	12	620-BKGDS1A	344	
670	5/9/2012 8:09	174	199	-25	620-BKGDS1A	344	
671	5/9/2012 8:09	162	199	-37	620-BKGDS1A	344	
672	5/9/2012 8:09	221	199	22	620-BKGDS1A	344	
	Transport of the second						- Add to the state of the state



Site Area: 707 Area: 469.07 m² Survey Unit: 23 Class: 1

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
673	5/9/2012 8:09	213	199	14	620-BKGDS1A	344	
674	5/9/2012 8:09	203	199	4	620-BKGDS1A	344	
675	5/9/2012 8:10	164	199	-35	620-BKGDS1A	344	
676	5/9/2012 8:10	223	199	24	620-BKGDS1A	344	
677	5/9/2012 8:10	176	199	-23	620-BKGDS1A	344	
678	5/9/2012 8:10	202	199	3	620-BKGDS1A	344	
679	5/9/2012 8:10	143	199	-56	620-BKGD51A	344	
680	5/9/2012 8:10	153	199	-46	620-BKGDS1A	344	
681	5/9/2012 8:10	152	199	-47	620-BKGDS1A	344	
682	5/9/2012 8:10	203	199	4	620-BKGDS1A	344	
683	5/9/2012 8:10	227	199	28	620-BKGDS1A	344	
684	5/9/2012 8:11	231	199	32	620-BKGDS1A	344	
685	5/9/2012 8:11	226	199	27	620-BKGDS1A	344	
686	5/9/2012 8:11	247	199	48	620-BKGDS1A	344	W - W-1
687	5/9/2012 8:11	217	199	18	620-BKGDS1A	344	
688	5/9/2012 8:11	169	199	-30	620-BKGDS1A	344	
689	5/9/2012 8:11	188	199	-11	620-BKGDS1A	344	
690	5/9/2012 8:11	165	199	-34	620-BKGDS1A	344	
691	5/9/2012 8:11	183	199	-16	620-BKGDS1A	344	
692	5/9/2012 8:12	196	199	-3	620-BKGDS1A	344	
693	5/9/2012 8:12	202	199	3	620-BKGDS1A	344	
694	5/9/2012 8:12	216	199	17	620-BKGDS1A	344	
695	5/9/2012 8:12	145	199	-54	620-BKGDS1A	344	
696	5/9/2012 8:12	170	199	-2 9	620-BKGDS1A	344	
697	5/9/2012 8:12	119	199	-80	620-BKGDS1A	344	
698	5/9/2012 8:12	154	199	-45	620-BKGDS1A	344	
699	5/9/2012 8:12	166	199	-33	620-BKGDS1A	344	
700	5/9/2012 8:12	201	199	2	620-BKGDS1A	344	
701	5/9/2012 8:13	132	199	-67	620-BKGDS1A	344	Q45 pp =
702	5/9/2012 8:13	111	199	-88	620-BKGDS1A	344	
703	5/9/2012 8:13	169	199	-30	620-BKGDS1A	344	
704	5/9/2012 8:13	181	199	-18	620-BKGDS1A	344	The second secon



Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

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кад #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3σ Investigation	Comments
		CPM	CPM	CPM		Level (cpm)	
705	5/9/2012 8:13	151	199	-48	620-BKGDS1A	344	
706	5/9/2012 8:13	170	199	-29	620-BKGDS1A	344	
707	5/9/2012 8:14	124	199	-75	620-BKGDS1A	344	
708	5/9/2012 8:14	168	199	-31	620-BKGDS1A	344	
709	5/9/2012 8:14	156	199	-43	620-BKGDS1A	344	
710	5/9/2012 8:14	161	199	-38	620-BKGDS1A	344	
711	5/9/2012 8:14	233	199	34	620-BKGDS1A	344	
712	5/9/2012 8:14	203	199	4	620-BKGDS1A	344	
713	5/9/2012 8:14	225	199	26	620-BKGDS1A	344	
714	5/9/2012 8:14	192	199	-7	620-BKGDS1A	344	
715	5/9/2012 8:15	113	199	-86	620-BKGDS1A	344	
716	5/9/2012 8:15	216	199	17	620-BKGDS1A	344	
717	5/9/2012 8:15	195	199	-4	620-BKGDS1A	344	Name of the second seco
718	5/9/2012 8:15	158	199	-41	620-BKGDS1A	344	
719	5/9/2012 8:15	185	199	-14	620-BKGDS1A	344	
720	5/9/2012 8:15	161	199	-38	620-BKGDS1A	344	
721	5/9/2012 8:15	204	199	5	620-BKGDS1A	344	
722	5/9/2012 8:15	202	199	3	620-BKGDS1A	344	
723	5/9/2012 8:15	193	199	-6	620-BKGDS1A	344	
724	5/9/2012 8:16	193	199	-6	620-BKGDS1A	344	
725	5/9/2012 8:16	163	199	-36	620-BKGDS1A	344	0.000
726	5/9/2012 8:16	169	199	-30	620-BKGDS1A	344	
727	5/9/2012 8:16	202	199	3	620-BKGDS1A	344	
728	5/9/2012 8:16	189	199	-10	620-BKGDS1A	344	
729	5/9/2012 8:16	229	199	30	620-BKGDS1A	344	
730	5/9/2012 8:16	211	199	12	620-BKGDS1A	344	1
731	5/9/2012 8:16	264	199	65	620-BKGDS1A	344	
732	5/9/2012 8:16	229	199	30	620-BKGDS1A	344	
733	5/9/2012 8:17	254	199	55	620-BKGDS1A	344	
734	5/9/2012 8:17	233	199	34	620-BKGDS1A	344	rio l
735	5/9/2012 8:17	182	199	-17	620-BKGDS1A	344	
736	5/9/2012 8:17	201	199	2	620-BKGDS1A	344	



Area: 469.07 m² Site Area: 707 Survey Unit: 23 Class: 1

			4.00					
Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments	
737	5/9/2012 8:17	253	199	54	620-BKGDS1A	344		
738	5/9/2012 8:17	243	199	44	620-BKGDS1A	344	2000 1700 1700 1700 1700 1700 1700 1700	
739	5/9/2012 8:17	221	199	22	620-BKGDS1A	344		
740	5/9/2012 8:17	281	199	82	620-BKGDS1A	344		
741	5/9/2012 8:18	212	199	13	620-BKGDS1A	344		
742	5/9/2012 8:18	225	199	26	620-BKGDS1A	344		
743	5/9/2012 8:18	208	199	9	620-BKGDS1A	344		
744	5/9/2012 8:18	205	199	6	620-BKGDS1A	344		
745	5/9/2012 8:18	186	199	-13	620-BKGDS1A	344		
746	5/9/2012 8:18	182	199	-17	620-BKGDS1A	344		
747	5/9/2012 8:18	192	199	-7	620-BKGDS1A	344		
748	5/9/2012 8:18	184	199	-15	620-BKGDS1A	344		-
749	5/9/2012 8:18	194	199	-5	620-BKGDS1A	344		1
750	5/9/2012 8:19	239	199	40	620-BKGDS1A	344	A 81 ST ST	
751	5/9/2012 8:19	109	199	-90	620-BKGDS1A	344	282	
752	5/9/2012 8:19	226	199	27	620-BKGDS1A	344		
753	5/9/2012 8:19	205	199	6	620-BKGDS1A	344		
754	5/9/2012 8:19	227	199	28	620-BKGDS1A	344		
755	5/9/2012 8:19	247	199	48	620-BKGDS1A	344		İ
756	5/9/2012 8:20	248	199	49	620-BKGDS1A	344		İ
757	5/9/2012 8:20	179	199	-20	620-BKGDS1A	344		ĺ
758	5/9/2012 8:20	194	199	-5	620-BKGDS1A	344		ĺ
759	5/9/2012 8:20	169	199	-30	620-BKGDS1A	344		ĺ
760	5/9/2012 8:20	161	199	-38	620-BKGDS1A	344		ĺ
761	5/9/2012 8:20	177	199	-22	620-BKGDS1A	344		ĺ
762	5/9/2012 8:20	204	199	5	620-BKGDS1A	344		ĺ
763	5/9/2012 8:20	200	199	1	620-BKGDS1A	344		ĺ
764	5/9/2012 8:21	216	199	17	620-BKGDS1A	344		ĺ
765	5/9/2012 8:21	177	199	-22	620-BKGDS1A	344		1
766	5/9/2012 8:21	219	199	20	620-BKGDS1A	344	DAMES AND THE RESERVE	1
767	5/9/2012 8:21	200	199	1	620-BKGDS1A	344		K
768	5/9/2012 8:21	200	199	1	620-BKGDS1A	344		1



TETRATECHEC, INC. Gamma Scan Measurement Report San Francisco, CA

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
769	5/9/2012 8:21	233	199	34	620-BKGDS1A	344	
770	5/9/2012 8:21	255	199	56	620-BKGDS1A	344	
771	5/9/2012 8:21	229	199	30	620-BKGDS1A	344	
772	5/9/2012 8:21	182	199	-17	620-BKGDS1A	344	
773	5/9/2012 8:22	169	199	-30	620-BKGDS1A	344	(A)
774	5/9/2012 8:22	165	199	-34	620-BKGDS1A	344	
775	5/9/2012 8:22	142	199	-57	620-BKGDS1A	344	
776	5/9/2012 8:22	176	199	-23	620-BKGDS1A	344	
777	5/9/2012 8:22	189	199	-10	620-BKGDS1A	344	
778	5/9/2012 8:22	143	199	-56	620-BKGDS1A	344	
779	5/9/2012 8:22	157	199	-42	620-BKGDS1A	344	
780	5/9/2012 8:22	142	199	-57	620-BKGDS1A	344	
781	5/9/2012 8:23	150	199	-49	620-BKGDS1A	344	
782	5/9/2012 8:23	219	199	20	620-BKGDS1A	344	
783	5/9/2012 8:23	300	199	101	620-BKGDS1A	344	
784	5/9/2012 8:23	229	199	30	620-BKGDS1A	344	
785	5/9/2012 8:23	255	199	56	620-BKGDS1A	344	
786	5/9/2012 8:23	192	199	-7	620-BKGDS1A	344	
787	5/9/2012 8:23	242	199	43	620-BKGDS1A	344	
788	5/9/2012 8:23	298	199	99	620-BKGDS1A	344	
789	5/9/2012 8:23	235	199	36	620-BKGDS1A	344	
790	5/9/2012 8:24	248	199	49	620-BKGDS1A	344	
791	5/9/2012 8:24	226	199	27	620-BKGDS1A	344	3840
792	5/9/2012 8:24	212	199	13	620-BKGDS1A	344	
793	5/9/2012 8:24	240	199	41	620-BKGDS1A	344	
794	5/9/2012 8:24	195	199	-4	620-BKGDS1A	344	
795	5/9/2012 8:24	226	199	27	620-BKGDS1A	344	
796	5/9/2012 8:24	238	199	39	620-BKGDS1A	344	
797	5/9/2012 8:24	225	199	26	620-BKGDS1A	344	
798	5/9/2012 8:25	213	199	14	620-BKGDS1A	344	
799	5/9/2012 8:25	202	199	3	620-BKGDS1A	344	
800	5/9/2012 8:25	203	199	4	620-BKGDS1A	344	
-							Company of the Compan

Area: 469.07 m² Site Area: 707 Class: 1 Survey Unit: 23

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Comments Rdg # Date / Time Net Background 3σ Gross Gamma Background Gamma Investigation Gamma CPM CPM **CPM** Level (cpm)

Net Gamma cpm

Min: -153

Summary

Avg: -3

Max: 101

St Dev: 39

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area Background Report

Site Area: 707 Survey Unit: 23 Class: 1 Area: 469.07 m²
Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

2350 Identification #: 620

Instrument/Probe Type: 2350-1 / 20DT06

Instrument Serial #: 228694

Probe Serial #: 091806B

Calibration Due Date: 9/28/2012

Reference Area Background Identification #: 620-BKGD\$1A Count Time (minutes): 1.00

Rdg # Date and Time Gross Gamma CPM 1 10/13/2011 15:12 168 2 10/13/2011 15:13 176 3 10/13/2011 15:14 169 4 10/13/2011 15:15 178 5 10/13/2011 15:16 162 6 10/13/2011 15:17 168 7 10/13/2011 15:19 198 8 10/13/2011 15:20 190 9 10/13/2011 15:20 190 9 10/13/2011 15:21 169 10 10/13/2011 15:22 282 11 10/13/2011 15:23 192 12 10/13/2011 15:25 230 13 10/13/2011 15:25 230 13 10/13/2011 15:25 196 14 10/13/2011 15:27 165 15 10/13/2011 15:30 147 17 10/13/2011 15:31 166 18 10/13/2011 15:32 168 19 10/13/2011 15:33 290 20 10/13/2011 15:35			
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	18	10/13/2011 15:32	168
20 10/13/2011 15:35 284	19	10/13/2011 15:33	290
	20	10/13/2011 15:35	284

Gamma Mean Background (cpm): 199

Standard Deviation: 48

Gamma 3σ Investigation 344

Level (cpm):



Survey Unit: 23 Site Area: 707 Class: 1 Area: 469.07 m²

Radioisotopes of Concern (ROCs): Cs137 Pu239 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 666-BKGDS1

Instrument Serial Number:

91499

Identification #:

Reference Area Background Parcel D-1

Instrument Calibration Due Date: 1/15/2013

Location:

Reference

Exposure Rate Background (µR/hr): 6

Exposure Rate Comments

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	6/22/2012	6	Collected at Surface 0" depth
2	6/29/2012	5	
3	7/31/2012	5	0112
4	7/31/2012	5	
5	7/31/2012	5	
6	7/31/2012	5	
7	7/31/2012	5	
8	7/31/2012	6	
9	7/31/2012	5	VALUE - 184
10	7/31/2012	5	
11	7/31/2012	5	
12	7/31/2012	5	
13	7/31/2012	5	
14	7/31/2012	5	
15	7/31/2012	5	
16	7/31/2012	5	
17	7/31/2012	5	
18	7/31/2012	5	
19	7/31/2012	5	
20	7/31/2012	5	
21	7/31/2012	5	
22	7/31/2012	6	
23	7/31/2012	6	
24	7/31/2012	6	



Exposure Rate Measurements

Exposure Rate Summary (µR/hr)

Min: 5.00 Avg: 5.21

Max: 6.00

St Dev: 0.41

TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02485 Chain-of-Custody Record

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Sampler Name Rolfe	J J	Airțill Number	mber	¥ ¥		50	4 W P	.1.	∢		LABORATORY DE JESTER	
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	e 949-756-7592	-7592		В С	i i				
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03707-S0023-F001-02	67212012 CGAS	C935	10	•	ဟ		[2	[2]		On-Site Gamma & Off-Site Total Sr	Wall 12° depth.	
03707-S0023-F001-03	67222012 OG3O	0630			ဟ		Σ	[2]		On-Site Gamma & Off-Site Total Sr	Bottom 24" depth	

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TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

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Project Information	Section			SAMPLE ID	
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	Π	7.) XS	DATE	6/29/2012 3 1/O
Project Name Radiological Site Survey	Project Location HUNTERS POINT	Sampler Name Zohensky	Project Chemist LISA BIENKOWSKI	SAMPLE_ID	03707-50023;F002-01

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TETRA TECH EC, INC.
1230 Columbia St, Sulte 750
San Diego, CA 92101

Chain-of-Custody Record

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3	Project Name Rediological Site Survey	Project Location HUNTERS POINT	Sampler Name. Rolfe	Project Chemist LISA BIENKOWSKI	SAMPLE_ID	03707,50023.F003-01	03707-S0023-F004-01	

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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

23836 BFS 0252

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vey	П		SKI	DATE	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012	713112012 O845	7731/2012 OS-S-D	7/31/2012	7/31/2012	7/31/2012
Radiological Site Survey	Project Location HUNTERS POINT	Sampler Name T. Rolfe	Project Chemist LISA BIENKOWSKI	SAMPLE_ID	03707-S0023-F005-01	03707-S0023-F006-01	03707-S0023-F007-01	03707-S0023-F008-01	03707-50023-F009-01	03707-S0023-F010-01	03707-S0023-F011-01	03707-S0023-F012-01	03707-S0023-F013-01	03707-S0023-F014-01	03707-S0023-F015-01	03707-S0023-F016-01

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company RSR35	Time 1356	Company	707-50023	
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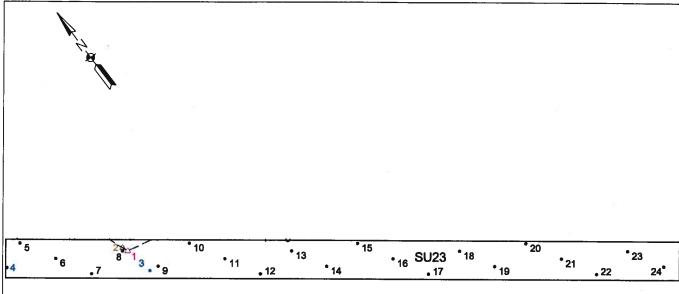
TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

23836/ BFS 02524

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Radiological Site Survey	irvey			N/A		Т		_	4.	LABORATORY NAME	Project Information
Project Location HUNTERS POINT	F	Project Number	humber	4044-0007			ZZ	460	2 a. X	ONSITE - Curtis & Tompleine LTD	Section
Sampler Name Rolfe		Airbill Number	umber	A N	1	Г	₹ છ	<u> </u>	4	LABORATORY ID	
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LEGEND:

- CHARACTERIZATION 1 SAMPLE 1 Δ 1
- POST REMEDIATION 1 SAMPLE 2
- BIASED SAMPLES 3-4 3
- SYSTEMATIC 1 SAMPLES 5-24

PREVIOUS REMEDIATION

RECORD COPY

SCALE 1:40

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

BUILDING 707 SURVEY UNIT 23



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: June 22, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 2; no activity above the release criteria was identified.

Building 707 Triangle

• The HPNS Team performed Class 1 survey activities for Survey Unit 23. A total of six pothole characterization gamma static measurements were logged with maximum measurements of 223 cpm (FIDLER) and 5,548 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team performed investigative survey activities for the tennis court area. A total of 10 biased gamma static measurements were logged with a maximum measurement of 6,272 cpm. A total of 1,100 alpha/beta scan readings and 10 alpha/beta static measurements were also logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limit. In addition, 10 swipe samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities for Survey Unit 22. A total of 5 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 7,076 cpm. In addition, 41 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Units 15 and 19; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were completed for Trench Unit No. 246 by the HPNS Team.
- The RSOR provided the HPNS Team with survey results for the pipe sections removed from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U and detailed in Survey No. HPS-PEPIPE-061912-053. Because no activity above the release criteria was identified, these 11 pipe sections were released and transferred to the recycling stockpiles.
- The RSOR provided the HPNS Team with survey results for the pipe located in trench segments 07-E36-38-1F, 07-E36-38-8E, and 07-E36-38-8F and detailed in Survey No. HPS-PEPIPE-061912-052. No activity above the release criteria was identified. These pipes will remain in place due to their proximity to Building 606 and the active SFPD sewer and telecommunication lines.
- The RSOR provided the HPNS Team with survey results for the Trench Unit No. 308 concrete pipe bedding debris removed from trench segments 07-E36-00-3T, 07-E36-00-3Z, and 07-E36-39-1U (Survey No. HPS-A-TU308-001). Because no activity above the release criteria was identified, the concrete debris was released and prepared for transfer to the recycling stockpiles.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

D . T . 00 0010	20110 000
Report Date: June 29, 2012	RMAC – CTO 07
	NVIAC - CTO 07

Overview

The HPNS Team continued field activities for Building 500, the Building 506 and 531 Sites, the Building 707 Triangle, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 707 Triangle

- A total of 15 cubic yards were remediated from Class 1 Survey Units 16, 22, and 23 by the HPNS Team and placed in LLRW bins BKRU026000T12 and MHFU001109T18 for off-site disposal.
- The HPNS Team performed additional survey activities around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23). Two previous pothole excavations were remediated and 12 post-remediation gamma static readings logged. The maximum measurements recorded were 216 cpm (FIDLER) and 5,456 cpm. In addition, six soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team performed Class 1 survey activities in Survey Units 16, 22, and 23. A total of 6 post-remediation gamma static readings logged with the maximum measurements recorded at 203 cpm (FIDLER) and 3,722 cpm. In addition, 3 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 22. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:

 - Sample Point 11 (07500SA-S0022-F011-01) with 137 Cs at 0.1628 pCi/g Sample Point 38 (07500SA-S0022-F038-01) with 137 Cs at 0.1207 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 23. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:

- Sample Point 14 (07500SA-S0023-F014-01) with ¹³⁷Cs at 0.1215 pCi/g
- Sample Point 16 (07500SA-S0023-F016-01) with ¹³⁷Cs at 0.1338 pCi/g Sample Point 35 (07500SA-S0023-F035-01) with ¹³⁷Cs at 0.1146 pCi/g
- Sample Point 40 (07500SA-S0023-F040-01) with ¹³⁷Cs at 0.1210 pCi/g
- The HPNS Team provided the RASO with revised on-site analytical results for the biased and systematic samples collected from Class 1 Survey Unit 24. Characterization and remediation will continue to be performed due to the presence of additional ¹³⁷Cs contamination as follows:
 - Sample Point 7 (07500SA-S0024-F007-01) with ¹³⁷Cs at 0.1434 pCi/g
 - Sample Point 11 (07500SA-S0024-F011-01) with ¹³⁷Cs at 0.1412 pCi/g
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Unit 20; no further contamination was identified.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team provided the RASO with on-site analytical results of the systematic samples collected from Trench Unit No. 308 (associated with the Building 506 and 531 Sites). Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 311 (associated with Building 500) and an updated Parcel E Trench Survey Unit Key Plan.
- Swale installation activities along Hussey Street were continued by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: July 31, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, the Building 707 Triangle, Shacks 79 and 80, the 500 Series Area, and Work Areas #21 and #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team completed excavation of the remaining tank pit concrete floor and walls associated with the former underground radiological waste storage tank in Survey Unit 3. The tank pit measures approximately 10 feet in width, 30 feet in length, and 8 feet in depth. A sump pump measuring 1 cubic foot was identified at the base of the structure. Due to the presence of the cracked vault floor, a sample was collected from the soil beneath the concrete surface and submitted to the on-site laboratory for analysis
- During radiological surface scanning of the removed soil and debris, 170 linear feet of 1.5 inch diameter utility piping, 1 sump filter, 2 metal valves, and 4 cubic yards of soil indicated the presence of elevated gamma readings. The HPNS Team transferred these items to LLRW bin ERRU000159T1 for off-site disposal. In addition, a waste characterization sample was collected and submitted to the on-site laboratory for analysis.
- Perimeter fencing was installed around the exposed tank pit by the HPNS Team.

Building 707 Triangle

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 22 A total of 40 systematic gamma static measurements were logged with the maximum measurements recorded at 240 cpm (FIDLER) and 5,563 cpm. In addition, 20 soil samples were collected and submitted to the onsite laboratory for analysis.
 - Survey Unit 23 A total of 4 biased and 40 systematic gamma static measurements were logged with the maximum measurements recorded at 286 cpm (FIDLER) and 5,730 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 23 and 24

- The HPNS Team provided the RASO with the following:
 - Total strontium analytical results for the 10 additional 12-inch deep pothole excavations around the previously remediated strontium spill area (Class 1 Survey Units 16, 21, 22, and 23); no activity above the release criteria was identified.
 - Total strontium analytical results for the characterization sample collected from Class 1 Survey Unit 23; no activity above the release criteria was identified.
 - Total strontium analytical results for the post-remediation samples collected from Class 1 Survey Unit 22. Characterization and remediation will be performed due to the presence of ⁹⁰Sr activity above the release criteria at Sample Point 40 (1.29 pCi/g).
 - Isotopic plutonium analytical results for the elevated ⁹⁰Sr samples collected from Class 1 Survey Units 21 and 22; no further contamination was identified.
 - Off-site analytical results for the systematic samples collected from Class 1
 Survey Unit 14; no activity above the release criteria was identified.

Shacks 79 and 80

• The HPNS Team provided the RASO with off-site analytical results for the replacement systematic sample collected from Class 1 Survey Unit 1; no activity above the release criteria was identified.

500 Series Area

- Approximately 3 cubic yards of soil was remediated from Class 1 Survey Unit 15 by the HPNS Team and placed in LLRW bin ERRU000159T1 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 15. A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,811 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Swale installation activities were continued by the HPNS Team along H and Hussey Streets.
- Approximately 855 tons of asphalt near Building 411was ground and recycled by Kroeker and the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report

Area	Survey	Sample	Sample	Sample	Date	COC Radiological
	Unit	Point	Type	ID	Collected	Technician
707	23	1	Characterization	03707-S0023-F001-01	22-Jun-12	Jeff Rolfe
707	23	1	Characterization	03707-S0023-F001-02	22-Jun-12	Jeff Rolfe
707	23	1	Characterization	03707-S0023-F001-03	22-Jun-12	Jeff Rolfe
707	23	2	Post-Remediation	03707-S0023-F002-01	29-Jun-12	Jeff Rolfe
707	23	3	Biased	03707-S0023-F003-01	31-Jul-12	Jeff Rolfe
707	23	4	Biased	03707-S0023-F004-01	31-Jul-12	Jeff Rolfe
707	23	5	Systematic	03707-S0023-F005-01	31-Jul-12	Jeff Rolfe
707	23	6	Systematic	03707-S0023-F006-01	31-Jul-12	Jeff Rolfe
707	23	7	Systematic	03707-S0023-F007-01	31-Jul-12	Jeff Rolfe
707	23	8	Systematic	03707-S0023-F008-01	31-Jul-12	Jeff Rolfe
707	23	9	Systematic	03707-S0023-F009-01	31-Jul-12	Jeff Rolfe
707	23	10	Systematic	03707-S0023-F010-01	31-Jul-12	Jeff Rolfe
707	23	11	Systematic	03707-S0023-F011-01	31-Jul-12	Jeff Rolfe
707	23	12	Systematic	03707-S0023-F012-01	31-Jul-12	Jeff Rolfe
707	23	13	Systematic	03707-S0023-F013-01	31-Jul-12	Jeff Rolfe
707	23	14	Systematic	03707-S0023-F014-01	31-Jul-12	Jeff Rolfe
707	23	15	Systematic	03707-S0023-F015-01	31-Jul-12	Jeff Rolfe
707	23	16	Systematic	03707-S0023-F016-01	31-Jul-12	Jeff Rolfe
707	23	17	Systematic	03707-S0023-F017-01	31-Jul-12	Jeff Rolfe
707	23	18	Systematic	03707-S0023-F018-01	31-Jul-12	Jeff Rolfe
707	23	19	Systematic	03707-S0023-F019-01	31-Jul-12	Jeff Rolfe
707	23	20	Systematic	03707-S0023-F020-01	31-Jul-12	Jeff Rolfe
707	23	21	Systematic	03707-S0023-F021-01	31-Jul-12	Jeff Rolfe
707	23	22	Systematic	03707-S0023-F022-01	31-Jul-12	Jeff Rolfe
707	23	23	Systematic	03707-S0023-F023-01	31-Jul-12	Jeff Rolfe
707	23	24	Systematic	03707-S0023-F024-01	31-Jul-12	Jeff Rolfe
707		169	Pothole	03AB707-169	10-May-12	
707		170	Pothole	03AB707-170	10-May-12	
707		171	Pothole	03AB707-171	10-May-12	
707 707		172	Pothole	03AB707-172	10-May-12	
707		173	Pothole	03AB707-173	10-May-12	
707		174 175	Pothole	03AB707-174	10-May-12	
707		176	Pothole	03AB707-175	10-May-12	
		177	Pothole	03AB707-176	10-May-12	
707 707		178	Pothole	03AB707-177	10-May-12	
707		179	Pothole Pothole	03AB707-178	10-May-12	
707		180	Pothole	03AB707-179 03AB707-180	10-May-12	
707		181	Pothole	03AB707-180 03AB707-181	10-May-12	
707		182	Pothole	03AB707-181	10-May-12	
707		183	Pothole	03AB707-182 03AB707-183	10-May-12	
707		184	Pothole	03AB707-184	10-May-12 10-May-12	
707		185	Pothole	03AB707-185	10-May-12	
707		186	Pothole	03AB707-185 03AB707-186	10-May-12	
707		187	Pothole	03AB707-180 03AB707-187	10-May-12	
707		188	Pothole	03AB707-188	10-May-12	
707		189	Pothole	03AB707-189	10-May-12	
707		190	Pothole	03AB707-190	10-May-12	
707		191	Pothole	03AB707-191	10-May-12	
707		192	Pothole	03AB707-192	10-May-12	
707		193	Pothole	03AB707-193	10-May-12	· · · · · · · · · · · · · · · · · · ·
707		194	Pothole	03AB707-194	10-May-12	
707		195	Pothole	03AB707-195	10-May-12	
			i outoio	0000101-190	10-141ay-12	

	On-	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
1.694	0.1951	0.007346	0.07147	0.1061
14.75	0.6692	0.009165	0.4078	0.0557
12.13	0	0.01222	0.3852	0.4531
0.5844	0.2833	-0.008165	0.08046	0.1025
1.756	0.04966	-0.006497	0.03644	0.06158
0.8618	0.01362	-0.0003545	0.06616	0.08767
1.213	-0.02511	-0.0002466	0.1061	0.164
0.4905	0.0006188	-0.0009267	0.03598	0.01855
0.662	0.2775	0.006401	0.07263	0.03902
1.595	0	0.004272	0.08312	0.1456
1.223	0.1928	0.00195	0.005799	0.1048
1.184	0.147	-0.004782	0.03401	0.04049
0.4131	0.1351	-0.0004251	0.01935	0.07443
1.063	0.07044	0.003235	0.06188	0.02943
1.106	0.08907	0	0.08436	0.1804
1.335	0.1835	0	0.04625	0.02271
1.054	0.1532	-0.0043	0.06963	0.002509
1.244	0.281	0.007934	0.0603	0.1193
1.399	0	0.0007414	0.09382	0.0092
0.8512	0.1745	0.002656	0.07255	0.1202
1.945	0.1559	-0.001054	0.04154	0.03743
0.9643	0.1013	0.001676	-0.01377	0.1472
1.554	0.2222	-0.008005	0.04183	0.02195
2.179	-0.1313	0.00807	0.07078	0.1304
1.328	0.2999	-0.0001945	-0.01292	0.19
1.164	-0.06465	0	0.04872	0.0482
11.73	0.6892	0.008231	0.1306	0.299
14.29	0.8271	-0.003974	0.2622	0.226
5.056	0.2544	0.009765	0.1417	0.1373
1.337	0.1251	0	0	0.05066
13.31	0.3867	0.01543	0.4078	0.3639
7.476	0.2707	0.00009332	0.222	0.2851
3.603	0.5217	0	0.1385	0.326
1.554	0.03596	-0.0007961	0.1388	0.2265
7.948	0.2398	0.01659	0.1131	0.1328
11.8	0.581	0	0.02402	0.02987
8.556	0.1057	0	0.1232	0.3432
12.24	0.6034	-0.006764	0.1968	0.4117
13.55	0.5263	-0.006977	0.1468	0.1471
14.04	0.7872	-0.00573	0.1229	0.1259
10.24	0.1303	0.0002656	0.01225	0.1239
5.806	0.4077	0.003978	0.07186	0.08492
9.658	0.1399	0.009304	0.1864	0.00492
11.37	0.7648	0.003304	0.1864	0.2123
9.643	0.4836	-0.000411	0.3019	0.2283
1.401	0.1000	0.000411	0.07647	0.02215
12.28	0.09166	0.1105	0.3218	0.4684
6.366	0.05524	0.1103	0.1556	0.4604
12.27	0.3083	0.01299	0.13367	0.2687
9.801	0.8232	-0.005635	0.2367	0.2007
8.286	0.3855	0.03178	0.3382	
3.129	0.3633			0.4147
10.15	0.6962	-0.00858	0.1081	0.07574
10.10	0.0802	0.001537	0.315	0.4151

Off-Site Laboratory (pCi/g)									
K-40	Ra-226	Cs-137	Bi-214	Pb-214					
		uni sa							
1.17	0.0928	0.00264	0.0928	0.108					
0.995	-0.0542	-0.00991	-0.0542	0.0884					
1.29	0.00443	-0.00116	0.00443	0.138					
1.05	0.0111	-0.000157	0.0111	0.199					
0.838	0.107	0.0303	0.107	0.0516					
0.912	0.00681	-0.00794	0.00681	0.0377					
1.09	0.0919	0	0.0919	0.149					
1.66	0.134	0.00937	0.134	0.0343					
0.836	0.0707	-0.0427	0.0707	0.0445					
1.25	0.244	0.0209	0.244	0.156					
1.51	0.0964	-0.0102	0.0964	0.169					
1.09	0.118	0.0288	0.118	0.142					
1.1	0.0337	-0.0591	0.0337	0.0687					
1.83	0.0404	0	0.0404	0.0435					
1.23	0.118	-0.0115	0.118	0.232					
1.69	0.0497	-0.00274	0.0497	0.154					
0.517	0.0753	0	0.0753	0.26					
1.46	0.108	-0.0403	0.108	0.179					
1.13	0.029	-0.00936	0.029	0.186					
2.03	0.23	-0.0119	0.23	0.215					

Area	Survey	Sample	Sample	Sample	Date	COC Radiological
	Unit	Point	Type	ID	Collected	Technician
707		196	Pothole	03AB707-196	10-May-12	
707		197	Pothole	03AB707-197	10-May-12	
707		198	Pothole	03AB707-198	10-May-12	
707		199	Pothole	03AB707-199	10-May-12	
707		200	Pothole	03AB707-200	10-May-12	
707		201	Pothole	03AB707-201	10-May-12	
707		202	Pothole	03AB707-202	10-May-12	
707		203	Pothole	03AB707-203	10-May-12	
707		204	Pothole	03AB707-204	10-May-12	
707		205	Pothole	03AB707-205	10-May-12	
707		_∠06	Pothole	03AB707-206	10-May-12	
707	i	207	Pothole	03AB707-207	10-May-12	
707		208	Pothole	03AB707-208	10-May-12	
707		209	Pothole	USAC707-209	10-May-12	
707		210	Pothole	03AB707-210	10-May-12	
707		211	Pothole	03AB707-211	10-May-12	
707		212	Pothole	03AB707-212	10-May-12	
707		213	Pothole	03AB707-213	10-May-12	
707		214	Pothole	03AB707-214	10-May-12	
707		215	Pothole	03AB707-215	10-May-12	
707		216	Pothole	03AB707-216	10-May-12	
707		217	Pothole	03AB707-217	10-May-12	
707		218	Pothole	03AB707-218	10-May-12	
707		219	Pothole	03AB707-219	13-Jun-12	
707		220	Pothole	03AB707-220	13-Jun-12	
707		221	Pothole	03AB707-221	13-Jun-12	
707		222	Pothole	03AB707-222	13-Jun-12	1
707		223	Pothole	03AB707-223	13-Jun-12	
707		224	Pothole	03AB707-224	13-Jun-12	
707		225	Pothole	03AB707-225	29-Jun-12	
707		226	Pothole	03AB707-226	29-Jun-12	
707		227	Pothole	03AB707-227	29-Jun-12	
707		228	Pothole	03AB707-228	29-Jun-12	
707		229	Pothole	03AB707-229	29-Jun-12	
707		230	Pothole	03AB707-230	29-Jun-12	
707		231	Pothole	03AB707-231	16-Jul-12	
707		232	Pothole	03AB707-232	16-Jul-12	
707		233	Pothole	03AB707-233	16-Jul-12	
707		234	Pothole	03AB707-234	16-Jul-12	
707		235	Pothole	03AB707-235	16-Jul-12	
707		236	Pothole	03AB707-236	16-Jul-12	
707		237	Pothole	03AB707-237	16-Jul-12	
707		238	Pothole	03AB707-238	16-Jul-12	
707		239	Pothole	03AB707-239	16-Jul-12	
707	.]	240	Pothole	03AB707-240	16-Jul-12	

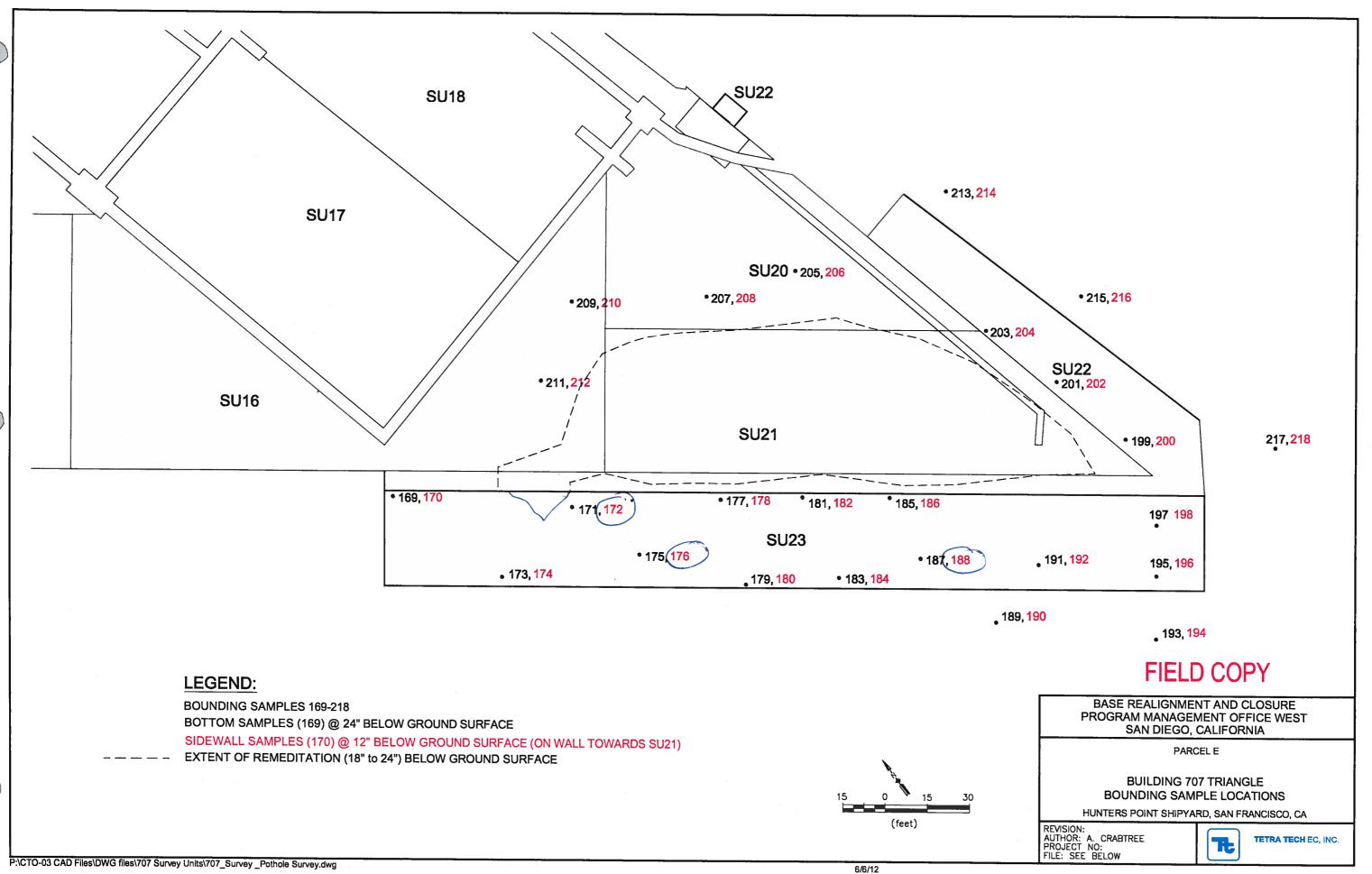
	On-	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
17.11	1.238	-0.01019	0.8515	0.7946
13	0.7313	0.004389	0.229	0.2262
18.08	0.8109	-0.005463	0.3764	0.6288
21.55	0.08181	-0.0001313	0.3286	0.2575
20.07	0.4834	0.2159	0.3433	0.3634
14.84	0.8724	0.01297	0.3167	0.4492
15.5	0.2258	0.0253	0.1285	0.442
12.5	0.5636	0.003668	0.4393	0.3575
13.23	0.7217	-0.0009544	0.4221	0.4995
18.16	0.4581	0	0.514	0.561
19.29	0.5096	0.01719	0.4148	0.5185
10.5	0.6571	0.007032	0.7417	0.631
11.15	0.876	-0.001485	0.522	0.4892
14.08	0.6517	0	0.5036	0.5556
13.66	0.4449	-0.006385	0.3569	0.4927
12.2	0.635	0.007645	0.3254	0.3971
12.97	0.3528	-0.0001886	0.1264	0.31.73
13.47	0.7134	0.03336	0.433	0.5992
10.74	0.3129	0.007558	0.512	0.4923
14.01	0.3673	0.03022	0.4466	0.566
15.51	1.155	0.2096	0.4584	0.6364
8.149	0.7831	0.01256	0.3079	0.3968
11.29	0.617	0.00139	0.335	0.4658
21.21	0.1934	0.01769	0.2642	0.157
23.05	0.5164	-0.003408	0.1537	0.2385
26.61	-0.02233	0.004797	0.1063	0.1665
15.27	0.8346	0.1856	0.4146	0.444
12.55	0.7268	0.01898	0.289	0.3934
16.79	0.6025	0.1702	0.4383	0.4545
0.9268	0.338	0	0.1112	0.1672
2.728	0.5169	0.0006006	0.1374	0.1765
0.5585	0	0	0.04905	0.09058
0.7029	0.03241	-0.0002297	0.07772	0.07062
12.54	0.62	0.003265	0.2246	0.4668
9.233	0.4073	-0.007659	0.2151	0.3549
12.45	0.6922	0	0.3813	0.3122
12.07	0.7933	0.01893	0.2593	0.3459
10.08	0.582	0.00003361	0.2593	0.3026
11.89	-0.4507	0.01095	0.4277	0.308
11.92	0.5279	0	0.4028	0.3068
10.5	0.608	0.001672	0.3368	0.3754
11.53	0.7752	0.009789	0.2121	0.2823
10.89	-0.0004168	0.006362	0.299	0.3337
10.43	0.3572	0.01566	0.3765	0.2583
11.72	0.591	-0.0006379	0.375	0.3736

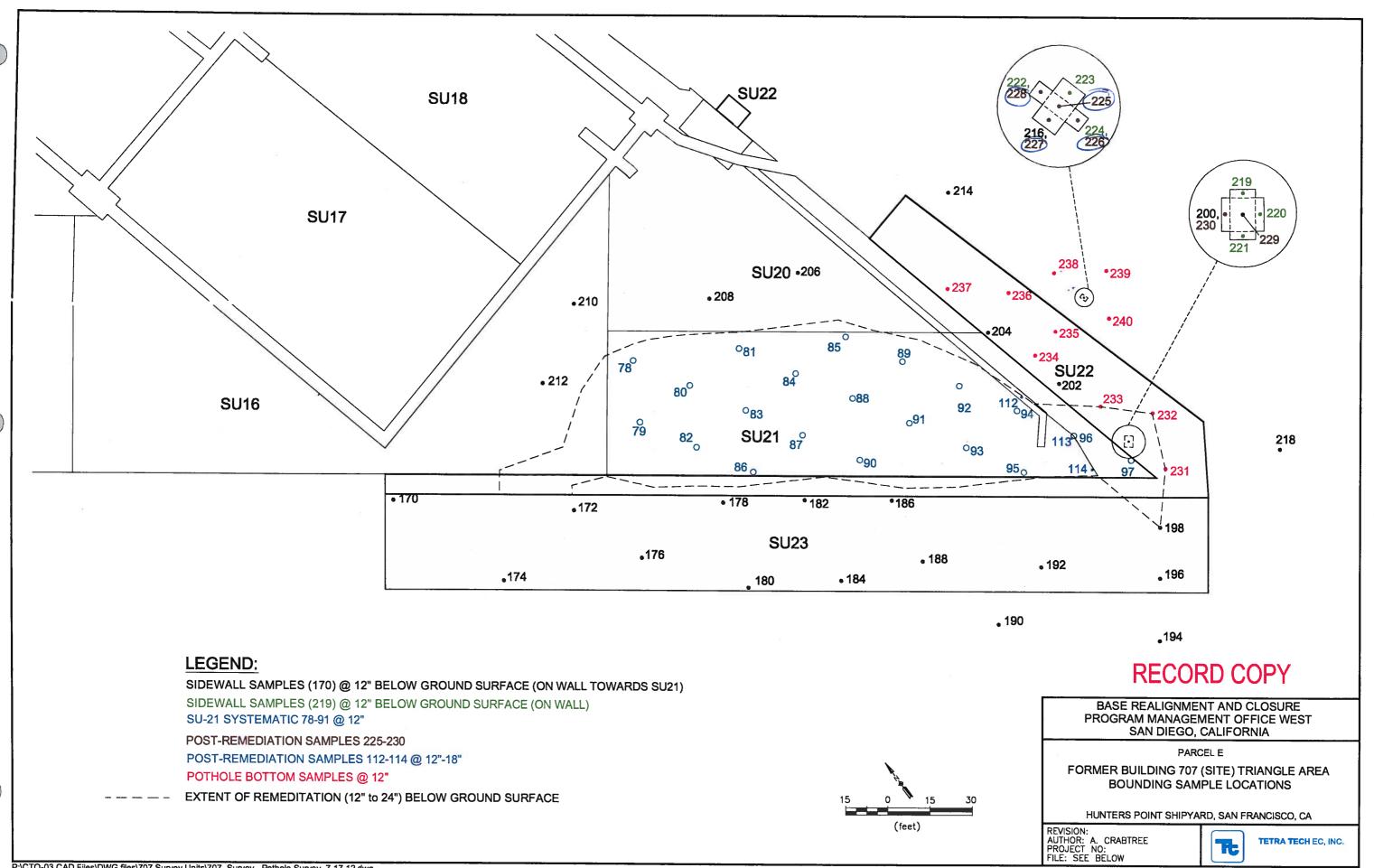
707 240 Pothole 03AB707-240 16-Jul-12 11.72

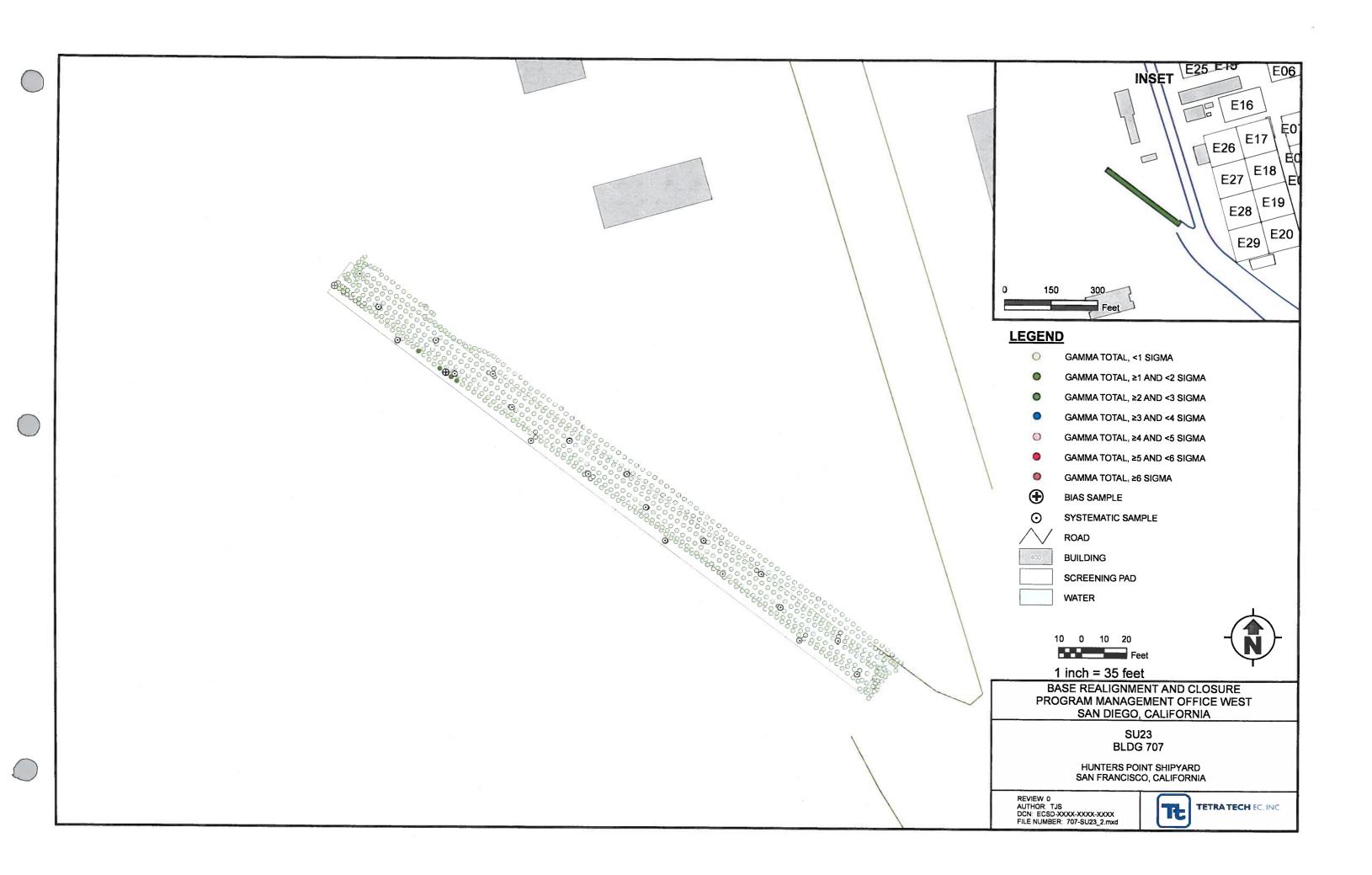
Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

Off-Site Laboratory (pCi/g)

	K-40 Ra-226	Cs-137	Bi-214	Pb-214
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TETRATECH EC, INC. Gamma Direct Measurement Report Hunters Point Shipyard San Francisco, CA

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma	Gamma Background	Net Gamma	Background ID*	3a Investigation	Comments
		CPM	CPM	CPM		Level (cpm)	
129	4/10/2012 11:38	7296	5886	1410	621-BKGD51A	7001	
130	4/10/2012 11:40	5375	5886	-511	621-BKGDS1A	7001	
131	4/10/2012 11:41	6449	5886	563	621-BKGDS1A	7001	
132	4/10/2012 11:42	6362	5886	476	621-BKGDS1A	7001	
133	4/10/2012 11:44	5862	5886	-24	621-BKGDS1A	7001	
134	4/10/2012 11:46	4827	5886	-1059	621-BKGDS1A	7001	
135	4/10/2012 12:39	7690	5886	0394	621-BKGDS1A	7001	
136	4/10/2012 12:40	7446	5886	1560	621-BKGDS1A	7001	
137	4/10/2012 12:41	6900	5886	1014	621-BKGDS1A	7001	
138	4/10/2012 12:43	6832	5886	946	621-BKGDS1A	7001	
139	4/10/2012 12:44	6958	5886	1072	621-BKGDS1A	7001	
140	4/10/2012 12:46	6016	5886	130	621-BKGDS1A	7001	
141	4/10/2012 12:47	6468	5886	582	621-BKGDS1A	7001	
142	4/10/2012 12:48	6965	5886	1079	621-BKGDS1A	7001	
143	4/10/2012 12:49	7421	5886	1535	621-BKGDS1A	7001	o lateral control
144	4/10/2012 12:50	7533	5886	1647	621-BKGDS1A	7001	
145	4/10/2012 12:52	7725	5886	1839	621-BKGDS1A	7001	
146	4/10/2012 12:53	5683	5886	-203	621-BKGDS1A	7001	
147	4/10/2012 12:55	6406	5886	520	621-BKGDS1A	7001	
148	4/10/2012 12:56	6588	5886	702	621-BKGDS1A	7001	
149	4/10/2012 12:57	6603	5886	717	621-BKGDS1A	7001	
150	4/10/2012 12:58	8515	5886	2629	621-BKGDS1A	7001	
151	4/10/2012 13:00	7574	5886	1688	621-BKGDS1A	7001	
152	4/10/2012 13:02	6487	5886	601	621-BKGDS1A	7001	201 122
153	4/10/2012 13:03	6458	5886	572	621-BKGDS1A	7001	
154	4/10/2012 13:04	7741	5886	1855	621-BKGDS1A	7001	
155	4/10/2012 13:05	7805	5886	1919	621-BKGDS1A	7001	
156	4/10/2012 13:07	7779	5886	1893	621-BKGDS1A	7001	
157	4/10/2012 13:08	8176	5886	2290	621-BKGDS1A	7001	
158	4/10/2012 13:24	6787	5886	901	621-BKGDS1A	7001	



TETRATECH EC. INC. Gamma Direct Measurement Report

Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m² Count Time: 1 min

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Rdg # Date / Time Gross Gamma Net Background 3 σ Comments
Gamma Background Gamma ID* Investigation
CPM CPM CPM Level (cpm)

Net Gamma cpm Min: -1237

Summary Avg: 1391

Max: 4060 St Dev: 1142

Readings $> 3\sigma$ investigation level are highlighted in blue

^{*} Background ID correlates to instrument reference area background identification number Gamma measurements > 3 σ Investigation level are verified by 2360 beta measurements



Site Area: 517 Survey Unit: 2 Class: 1 Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 578-BKGDS1

Instrument Serial Number:

207505

Reference Area Background Parcel D-1

Reference

Instrument Calibration Due Date: 2/24/2012

Location:

Exposure Rate

Identification #:

Background (μR/hr):

Rdg#	Date	Exposure Rate (µR/hr)	Comments
_1	12/12/2011	9	
2	12/12/2011	10	
3	12/12/2011	10	
4	12/12/2011	9	
5	12/12/2011	8	
6	12/12/2011	9	
7	12/12/2011	9	
8	12/12/2011	7	TOTAL CONTRACTOR OF THE PROPERTY OF THE PROPER
9	12/12/2011	8	
10	12/12/2011	8	
11	12/12/2011	7	
12	12/12/2011	7	
13	12/12/2011	7	
14	12/12/2011	8	
15	12/12/2011	8	
16	12/12/2011	8	
17	12/12/2011	7	
18	12/12/2011	8	
19	12/12/2011	9	
20	12/12/2011	7	
21	12/12/2011	6	
22	12/12/2011	7	
23	12/12/2011	7	
24	12/12/2011	8	notes as
25	12/12/2011	8	
26	12/12/2011	7	
27	12/12/2011	7	2007/005



TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg # 28	Date 12/12/2011	Exposure Rate (µR/hr)	Comments
28	12/12/2011	(party in)	
	12/12/2011	8	
29	12/12/2011	8	
30	12/12/2011	8	
31	12/12/2011	8	
32	12/12/2011	7	
33	12/12/2011	7	
34	12/12/2011	9	
35	12/12/2011	9	068
36	12/12/2011	8	
37	12/12/2011	8	
38	12/12/2011	6	
39	12/12/2011	9	
40	12/12/2011	9	
41	12/12/2011	9	
42	12/12/2011	8	
43	12/12/2011	7	
44	1/12/2012	7	
45	1/12/2012	7	
46	1/12/2012	7	
47	1/12/2012	8	
48	1/12/2012	8	
49	1/12/2012	8	
50	1/12/2012	8	
51	1/12/2012	8	
52	1/12/2012	8	
53	1/12/2012	8	
54	1/12/2012	10	
55	1/12/2012	10	
56	1/12/2012	9	
57	1/12/2012	9	
58	1/12/2012	9	
59	1/12/2012	10	
60	1/12/2012	10	
61	1/12/2012	10	0.000
62	1/12/2012	9	



Gamma Instrument and Reference Area Background Report

Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Survey Unit: 2

2350 Identification #: 621

Site Area: 517

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 98613

Probe Serial #: 192584

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 621-BKGDS1A Count Time (minutes): 1.00

Class: 1

Rdg #	Date and Time	Gross Gamma CPM
1	10/28/2011 13:11	6579
2	10/28/2011 13:12	5806
3	10/28/2011 13:13	5810
4	10/28/2011 13:15	5708
5	10/28/2011 13:16	5928
6	10/28/2011 13:17	6468
7	10/28/2011 13:19	6385
8	10/28/2011 13:20	6664
9	10/28/2011 13:21	5974
10	10/28/2011 13:22	5682
11	10/28/2011 13:23	5896
12	10/28/2011 13:24	5890
13	10/28/2011 13:25	5313
14	10/28/2011 13:27	5811
15	10/28/2011 13:28	5835
16	10/28/2011 13:29	5626
17	10/28/2011 13:30	5476
18	10/28/2011 13:31	5758
19	10/28/2011 13:32	5698
20	10/28/2011 13:33	5403

Gamma Mean Background (cpm):

5886

Standard Deviation:

372

Gamma 3σ Investigation

7001

Level (cpm):



TETRATECH EC. INC. Gamma Instrument and Reference Area Hunters Point Shipyard San Francisco, CA Rackground Bonort **Background Report**

Class: 1 Area: 1998.82 m² Site Area: 517 **Survey Unit: 2**

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

2350 Identification #: 622 Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430 Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Styles Bullet -		
Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm): 5845

> **Standard Deviation:** 386

Gamma 3σ Investigation 7004

Level (cpm):



Instrument Calibration Due Date: 2/24/2012

Site Area: 517

Survey Unit: 2

Class: 1

Area: 1998.82 m²

Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background 577-BKGDS1

Instrument Serial Number:

109970

Reference Area Background

Location:

Parcel D-1

Reference

Exposure Rate

Identification #:

5

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
63	1/19/2012	10	
64	1/19/2012	10	
65	1/19/2012	10	
66	1/19/2012	9	
67	1/19/2012	7	0.00 O
68	1/19/2012	8	
69	1/19/2012	7	
70	1/19/2012	7	
71	2/2/2012	9	
72	2/2/2012	8	
73	2/2/2012	8	
74	2/2/2012	8	
75	2/2/2012	8	
76	2/2/2012	8	
77	2/2/2012	8	
78	2/2/2012	8	
79	2/2/2012	7	
80	2/2/2012	8	
81	2/2/2012	9	
82	2/2/2012	10	
83	2/2/2012	9	
84	2/2/2012	9	
85	2/2/2012	9	71. 1. (1. (1. (1. (1. (1. (1. (1. (1. (1
86	2/2/2012	8	
87	2/2/2012	7	
88	2/2/2012	10	
89	2/2/2012	9	S AND A SECOND STATE OF THE SECOND STATE OF TH



Exposure Rate

Min: 6.00

Summary (µR/hr) Avg: 8.13

Max: 10.00

St Dev: 1.03



TETRATECHEC. INC. Exposure Rate Measurements San Francisco, CA

Rdg #	Date	Exposure Rate (µR/hr)	Comments
90	2/2/2012	8	
91	2/2/2012	8	
92	2/2/2012	8	
93	2/2/2012	7	
94	2/2/2012	7	
95	2/2/2012	10	
96	2/2/2012	9	
97	2/2/2012	9	
98	2/2/2012	9	
99	2/2/2012	7	
100	2/2/2012	7	
101	2/2/2012	8	
102	2/2/2012	9	
103	2/2/2012	7	
104	2/2/2012	7	
105	2/2/2012	8	
106	2/2/2012	7	
107	2/2/2012	6	

Exposure Rate Summary (µR/hr)

Min: 6.00

Avg: 8.20

Max: 10.00

St Dev: 1.06

Class: 1

Survey Unit: 2 Radioisotopes of Concern (ROCs): Cs137 Co60 Ra226 Sr90

Instrument Model:

Site Area: 517

Model 19

Reference Area Background

Area: 1998.82 m²

666-BKGDS1

Instrument Serial Number:

91499

Identification #:

Reference Area Background

Parcel D-1

Instrument Calibration Due Date: 1/15/2013

Location:

Reference

Exposure Rate

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
108	2/21/2012	9	
109	2/21/2012	9	
110	2/21/2012	9	
111	2/21/2012	9	
112	2/21/2012	9	
113	2/21/2012	10	
114	2/21/2012	10	
115	3/5/2012	8	
116	3/5/2012	8	
117	3/5/2012	8	
118	3/5/2012	8	
119	4/2/2012	7	
120	4/2/2012	7	
121	4/2/2012	7.	
122	4/2/2012	7	
123	4/10/2012	8	
124	4/10/2012	8	
125	4/10/2012	7	
126	4/10/2012	7	
127	4/10/2012	8	
128	4/10/2012	7	
129	4/10/2012	8	
130	4/10/2012	8	
131	4/10/2012	7	
132	4/10/2012	7	
133	4/10/2012	7	
134	4/10/2012	8	



Rdg #	Date	Exposure Rate (µR/hr)	Comments
135	4/10/2012	8	
136	4/10/2012	9	
137	4/10/2012	9	
138	4/10/2012	8	
139	4/10/2012	8	
140	4/10/2012	8	
141	4/10/2012	7	
142	4/10/2012	8	
143	4/10/2012	8	
144	4/10/2012	9	
145	4/10/2012	9	
146	4/10/2012	9	
147	4/10/2012	7	region and the second
148	4/10/2012	8	
149	4/10/2012	8	
150	4/10/2012	8	
151	4/10/2012	9	
152	4/10/2012	9	
153	4/10/2012	7	
154	4/10/2012	9	
155	4/10/2012	9	
156	4/10/2012	9	
157	4/10/2012	9	
158	4/10/2012	9	

Exposure Rate Summary (µR/hr) Min: 7.00

Avg: 8.16

Max: 10.00

St Dev: 0.86

1230 Columbia St, Suite 750

San Diego, CA 92101

TETRA TECH EC, INC.

BFS 02155

Project Information SAMPLE ID Section ONSTTE - Curtis & Tomplins, Ltd. LABORATORY NAME LOCATION LABORATORY ID COMMENTS **ムシをHA 50 24 60 0** CHECAMEN 2 2 \square > **>** Σ D > Σ 2 \square TYPE S S S S S Ø ဟ ဟ S S S ဟ 949-756-7592 4044-0007 Containers LEVEL ¥ Project Chemist Phone Project Number Airbill Number PO Number 12/12/2011 09.05 12/12/2011 OS 1D 12/12/2011 0750 12/12/2011 0755 12/12/2011 09.00 12/12/2011 08 15 12/12/2011 09,20 12/12/2011 0840 12/12/2011 08 45 121212011 0825 12/12/2011 0830 TIME 12/12/2011 0835 DATE Project Name Radiological Building Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name 07517-S0002-F001-01 07517-S0002-F002-01 07517-S0002-F003-01 07517-S0002-F004-01 07517-S0002-F005-01 07517-S0002-F006-01 07517-S0002-F009-01 07517-S0002-F010-01 07517-S0002-F011-01 07517-S0002-F012-01 07517-S0002-F007-01 07517-S0002-F008-01 SAMPLE ID

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Relinquished by Hogganaly eller	Date 12.11 Received	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
company RSRS	SE Hume	Company 2		5142, 517 SITE
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	50.7
Сотрану	Time	Сотрапу		SYSTEMATIC 8-43
Relinguished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Сотрапу	Time	Company	- TEMPERATURE: SAMPLE CONDITION; COOLER SEAL;	

1230 Columbia St, Suite 750

San Diego, CA 92101

TETRA TECH EC, INC.

BFS 02156

Project Information SAMPLE ID ONSITE - Curtis & Tomplins, Ltd. LABORATORY NAME LOCATION DARORATORY ID COMMENTS ACA TOP **ムゴウ珀内** S 14 6 0 2 [2] Σ > > Σ Σ = 2 2 Σ 2 2 TYPE S S S S Ø S ဟ S ဟ ഗ S ģ 949-756-7592 4044-0007 Containers LEVEL Ş Project Chemist Phone Project Number Airbill Number PO Number 12122011 0850 0950 12/12/2011 0935 12/12/2011 0940 127222011 0941S 12/12/2011 1030 12/12/2011 0955 12/12/2011 09 30 TIME 12/12/2011 1015 12/12/2011 10:00 12/12/2011 1005 12/12/2011 1 0/0 12/12/2011 DATE Project Name Radiological Building Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name ROLFE 07517-S0002-F013-01 07517-S0002-F016-01 07517-S0002-F018-01 07517-S0002-F023-01 07517-S0002-F014-01 07517-S0002-F015-01 07517-S0002-F017-01 07517-S0002-F019-01 07517-S0002-F020-01 07517-S0002-F021-01 07517-S0002-F024-01 07517-S0002-F022-01 SAMPLE_ID

Relinquished by: Isignange Off	Date 12.71	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company RS RS	25.7/mm	Company = 5/		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Сотрапу	Time	Сотрапу		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Company	Time	Сотрапу	TEMPERATURE: SAMPLE CONDITION: COULER SEAL;	

TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Project Name Radiological Building Survey	Survey	РО Митвет	ಚ	N/A		39	G A	41	8	LABORATORY NAME	Project Information
Project Location HUNTERS POINT	_	Project Number	ımber	4044-0007	77	F4)	ZZ <	A A .	8	ONSITE - Curtis & Tompkins, Ltd.	Section
Sampler Name , ROLFE	\	Airbill Number	шрег	NA			< 00 P	∢	18	LANORATORY M	- 15 - 11 - 11 - 11 - 10 - 10
Project Chemist LISA BIENKOWSKI	KI	Project Cl	Project Chemist Phone	e 949-756-7592	7592	3	ម្រ				1216
	DATE	TIME	Contininers LEVEL	LEVEL	TYPE	+ < +	1 1	1	COMMENTS	LOCATION	SAMPLE ID
	12/12/2011 102/5	1025	-		S		<u>\</u>	무	îi		
16	12/12/2011	1030	1		S		<u> </u>	뮈			
	12/12/2011	1035	-		တ	الغا	[2]	뮈			
	12/12/2011 104D	0401	-		တ		<u>∑</u>	믜	60 10		
	12/12/2011	1245	-		ဟ		[<u>S</u>]	믜			
	12/12/2011 105D	050			S		<u>[S]</u>	믜			
	12/12/2011 1055	1055	-		တ	ا <u>گ</u>	<u>∑</u>	믜			
	12/12/2011	1100	-		S		<u>□</u>	믜			
07517-S0002-F033-01	12/12/2011	1105	-		ဟ	2		믜			
07517-S0002-F034-01	12/12/2011	1110	-		S	Σ		믜			
	12/12/2011	1115	-		S	Σ		믜	es.		
	12/12/2011	nao	-		S	\(\)	J L				

Relinquished by: Gignanice	11-41-51	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
	Time 14:35	Company C ET		
	Date	Received by: (signature)	COMPOSITE DESCRIPTION	1
Сотрапу	Time	Сатрапу		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	4
Сотрапу	Ттте	Сотрапу	TEMPERATURE: SAMPLE CONDITION; COOLER SEAL;	

BFS 02158

TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Project Name		PO Number	<u>រ</u>			Ť	S	٧	3	LABORATORY NAME	
Radiological Building Survey				N/A			<u> </u>	<u>, 1</u>	E'		Project Information
Project Location HUNTERS POINT	П	Project Number	итрег	4044-0007	2		Z Z <	A H		ONSITE - Cartis & Tomplins, Ltd.	Section
Sampler Name OCFE		Airbill Number		N/A			< 50 E	<		LAHORATORY ID	
Project Chemist LISA BIENKOWSKI	SKI	Project Ch	Project Chemist Phone	949-756-7592	592		M O				
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	⊢< ⊢	1 1	1	COMMENTS	LOCATION	SAMPLE ID
07517-S0002-F037-01	12/12/2011	1125	-		S	[2]		믜			
07517-S0002-F038-01	12/12/2011	1130	-		S		<u>\</u>	믜		200	
07517-S0002-F039-01	12/12/2011	125	-		S		<u>D</u>	믜			
07517-S0002-F040-01	12/12/2011	QH1	4-	_	S		2	믜	8		
07517-S0002-F041-01	12/12/2011	Sher	-		S	2		믜			
07517-S0002-F042-01	12/12/2011	1350	-		ဟ	Z	님	믜			
07517-S0002-F043-01	12/12/2011 13.55	1355	-		s s	<u>></u>	붜	믜			

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company 185185	Time 4:35	Company - ET		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Тте	Сотрану		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIFT (FOR LABORATORY)	
Сотрапу	Ттте	Company	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL;	000

1230 Columbia St, Saite 750

San Diego, CA 92101

TETRA TECH EC, INC.

BFS 02183

Project Information Section SAMPLE ID ONSITE - Curtis & Tompkins, Ltd. LABORATORY NAME LOCATION LABORATORY ID COMMENTS **AHPEA** 8 4 6 0 -Σ CHEMPERP -2 \sum Σ 2 **\S** 2 Σ \square **S** > $\mathbf{\Sigma}$ TYPE ဟ Ś Project Chemist Phone 949-756-7592 S S S Ġ S ဟ S Ø Ø 4044-0007 Containers LEVEL Project Number Airbill Number PO Number 1/12/2012 | 0825 1/12/2012 | CSF35 11122012 OB40 11122012 | 084S 1/12/2012 10850 1M2/2012 | 0/8/15 1/12/2012 0855 1/12/2012 0830 1/12/2012 09.25 11122012 0935 1/12/2012 0930 TIME 11122012 | 0820 DATE Project Name Radiolofgcal Building Survey Sampler Name T. ROIFC Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 07517-S0002-F044-01 07517-S0002-F045-01 07517-S0002-F046-01 07517-S0002-F047-01 07517-S0002-F048-01 07517-S0002-F049-01 07517-S0002-F050-01 07517-S0002-F051-01 07517-S0002-F052-01 07517-S0002-F053-01 07517-S0002-F054-01 07517-S0002-F055-01 SAMPLE ID

Relinquished by fallmaghe M.	Date -12-12 Ru	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company RSRS	150l	Company CG/		BSIM SIE A開A
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	6.148 APPER JOHNNON
Сотрапу	Тте	Сотрану		12 H
Relinguished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR IMBORATORY)	
Сотрапу	Тте	Сотрапу	TREPERATURE: SAMPLE CONDITION: COOLER SPALL	

TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Project Name Radioloigcal Building Survey	r Survey	PO Number	ğ	NA		12	υ φ	× -		LABORATORY NAME	Project Information
Project Location HUNTERS POINT	Ę	Project Number	umber	4044-0007	7		Z Z	H		ONSTTE - Curfis & Tomblins, Ltd.	Section
Sampler Name Rolfe	M	Airbill Number	ımber	ΑN		Γ	4 W =	⋖		LABORATORY ID	
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	949-756-7592	7592		- HID	· · · · ·			
SAMPLE_ID	DATE	TIMIE	Containers LEVEL	LEVEL	TYPE	474	-	-	COMMENTS	LOCATION	SAMPLEID
07517-50002-F056-01	1/12/2012	111212012 OG40	-		တ	- 2	2	무			
07517-S0002-F057-01	1/12/2012	111212012 094S	*		S		Z	무			
07517-S0002-F058-01	1/12/2012	11122012 D950	-		ဟ		2	무			
07517-S0002-F059-01	1/12/2012	1/12/2012 09.SS	1		S		2	무			
07517-S0002-F060-01	1/12/2012	000/	-		S		2	무			
07517-S0002-F061-01	1/12/2012	5001	-		တ		<u> </u>	무			
07517-S0002-F062-01	1/12/2012	1010	-		တ	رقا	[2]	님			
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Relinquished by gigingalle. P.	Dute 12-12	Received by: (signature)	LABORATORYINSTRUCTIONSCOMMENTS	SAMPLING COMMENTS
	106 Juni	Completo (87		
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	949-756-7592	7592	: 76	<u>ម្</u> តាព					
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

Project Name Radiological Building Survey	Survey	PO Number)er	N/A		□ ₹	S	41		LABORATORY NAME	Project Information
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1230 Columbia St, Suite 750

San Diego, CA 92101

TETRA TECH EC, INC.

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TETRA TECH EC, INC. 1230 Columbia St, Suite 750

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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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TETRA TECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

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TETRA TECH EC. INC.
1230 Columbia St, Suite 759
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TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

Project Name Radiological Building Survey	3 Survey	PO Number	5	NA		ა ∢	SOM	<u> </u>		LABORATORY NAME	Project Information
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Project Chemist LISA BIENKOWSKI	SKI	Project Ch	Project Chemist Phone	949-756-7592	7592	, M O			8		220, 2
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1230 Columbia St, Suite 750

San Diego, CA 92101

TETRA TECH EC, INC.

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Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY ID COMMENTS g A **AUVEA** -**∞** ≈ • • Σ \square [2] 2 2 C K P O P Z Z P $oldsymbol{\Sigma}$ \square [2] 5 Σ **S** Σ --TYPE ഗ တ တ Ø တ Ø S S S S ဟ 949-756-7592 4044-0007 Containers LEVEL Š ١ Project Chemist Phone Project Number Airbill Number PO Number 1335 1315 4/10/2012 1330 1330 4H0Z012 / 305 4/10/2012 1335 4110Z012 134S TIME 4/10/2012 1355 4/10/2012 1340 4/10/2012 1310 4/10/2012 1350 4/10/2012 1/400 4/10/2012 4/10/2012 4/10/2012 DATE Project Name Radiological Building Survey Project Chemist
LISA BIENKOWSKI Project Location HUNTERS POINT Sampler Name Rote 07517-S0002-F145-01 07517-S0002-F135-01 07517-S0002-F136-01 07517-S0002-F137-01 07517-S0002-F139-01 07517-S0002-F138-01 07517-S0002-F140-01 07517-S0002-F141-01 07517-S0002-F142-01 07517-S0002-F143-01 07517-S0002-F144-01 07517-S0002-F146-01 SAMPLE_ID

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1230 Columbia St, Suite 750

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TETRA TECH EC, INC.

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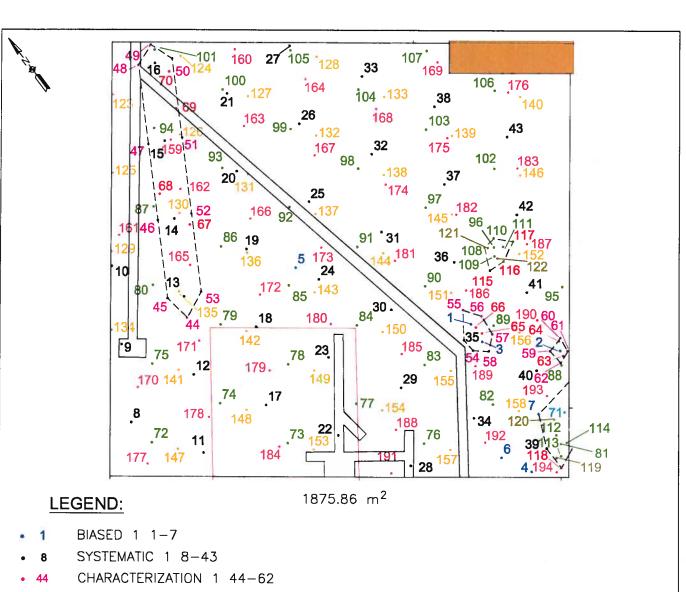
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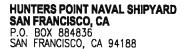


- 63 POST—REMEDIATION 1 63—70
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- 115 CHARACTERIZATION 3 115-118
- 119 POST-REMEDIATION 2 119-122
- 123 SYSTEMATIC 3 123-158
- 159 SYSTEMATIC 4 159-194
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FORMER BUILDING 517 SITE

SCALE 1:30

RECORD COPY





Chiu, George

From:

Chiu, George

Sent:

Friday, June 22, 2012 1:10 PM

To:

Cc:

Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl;

Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie;

Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject:

HPS Data - Building 517 Survey Unit 02

Attachments:

07517-S0002 123 to 158 Off-Site Gamma.pdf; 07517-S0002 Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec and strontium results for the systematic samples from Building 517 Survey Unit 02.

George Chiu | Health Physicist

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Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Monday, April 23, 2012 1:17 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe: Montgomery. Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site systematic sampling results from Building 517 Survey Unit 02. Samples 125, 132, 142, 145, 145DUP, 149, 150, 152, 154, and 157 were recounted for a longer duration at the direction of the laboratory manager.

According to the TSP for the Former Building 517 Site, 100% of the final systematic will be analyzed by gamma spectroscopy at a DoD ELAP approved laboratory. Additionally, 10% of the final systematic will be analyzed for total strontium.

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From: Chiu, George

Sent: Wednesday, April 18, 2012 4:56 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robln; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karlsa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the revised post-remediation sampling results from Building 517 Survey Unit 02. Samples 119 and 120 were recounted for a longer duration in order to meet the Co-60 MDA requirement in the Sampling and Analysis Plan Revision 1.

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From: Chiu, George

Sent: Sunday, April 08, 2012 10:57 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Building 517 Survey Unit 02.

We will proceed with the systematic sampling of this survey unit.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

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Think G

Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Sunday, March 18, 2012 11:14 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - Building 517 Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02. Samples 115, 117, and 118 were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with remediation followed by post-remediation sampling.

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From: Chiu, George

Sent: Friday, March 02, 2012 1:25 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02. All samples were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with characterization/remediation around the following sample points due to radium-226 activity:

	Sample ID	Ra-226 (pCi/g)
	07517-S0002-F109-01	1.855
_	07517-S0002-F111-01	1.682
	07517-S0002-F112-01	2.123

07517-S0002-F113-01	1.801
07517-S0002-F114-01	2.199

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From: Chiu, George

Sent: Monday, February 20, 2012 8:42 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Building 517 Survey Unit 02. Samples 71, 77, 81, 82, 84 - 86, 88 - 93, 95 - 98, 101 - 104, and 103DUP were recounted for a longer duration at the direction of the laboratory manager.

We will proceed with characterization/remediation around sample points 81 (1.647 pCi/g) and 96 (2.405 pCi/g) due to radium-226 activity.

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From: Chiu, George

Sent: Sunday, January 29, 2012 4:49 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Building 517 Survey Unit 02. Samples 63, 64, 65, 66, 67, 69 and 70 were recounted for a longer duration at the direction of the laboratory manager.

Since the survey unit boundary was extended due to characterization/remediation, we will proceed with a gamma scan followed by the bias/systematic sampling of this survey unit.

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From: Chiu, George

Sent: Thursday, January 26, 2012 12:22 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the revised bias, systematic, and characterization sampling results from Building 517 Survey Unit 02. Samples were recounted for a longer duration in order to meet the Co-60 MDA requirement in the Sampling and Analysis Plan Revision 1.

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From: Chiu, George

Sent: Tuesday, January 17, 2012 9:58 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Building 517 Survey Unit 02.

We will proceed with remediation followed by post-remediation sampling.

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From: Chiu, George

Sent: Friday, January 06, 2012 2:51 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Building 517 Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Building 517 Survey Unit 02. Samples 01, 02, 03, 05, 13, 14, 15, 16, 25, and 42 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around the following sample points due to radium-226 activity:

Sample ID	Ra-226 (pCi/g)	
07517-S0002-F001-01	1.793	
07517-S0002-F002-01	1.729	
07517-S0002-F003-01	1.838	
07517-S0002-F013-01	3.803	
07517-S0002-F014-01	2.481	
07517-S0002-F015-01	2.046	
07517-S0002-F016-01	1.784	

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Report Date: December 12, 2011	RAD EMAC – CTO 002
Report Date. December 12, 2011	RAD EWAC - CTO 002

Overview

The HPNS Team continued field activities for Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 408 cubic yards of soil from Work Areas #34 and #35 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

_	02-C34-28-1C	27 linear feet completed
-	02-C34-28-1D	39 linear feet completed
-	02-C34-28-1K	59 linear feet completed
-	02-C34-28-1L	66 linear feet completed
-	02-C34-28-1M	60 linear feet completed
-	02-C34-28-6C	6 linear feet completed
-	02-C35-00-8A	10 linear feet completed

- A total of 257 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 10 linear feet not identified on the design drawings was completed by the HPNS Team.
- Manholes MH1045 and MH1047 and pipe sections excavated from trench segments 02-C34-28-1C, -1D, -1K, -1L, -1M, -6C, and 02-C35-00-8A were placed on plastic pending further activities.
- Survey activities were performed by the HPNS Team for excavated Manholes MH1011, MH1027, and MH1329 (Survey No. HPS-PCPIPE-121211-040). A total of 6 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with pipe survey results (Survey Nos. HPS-PCPIPE-120611-037 and HPS-PCPIPE-120711-038). No activity above the release criteria was identified.
- The HPNS Team continued paving along Lockwood Street and Spear Avenue over backfilled trench units in Work Areas #33 and #35.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: December 12, 2011 RMAC – CTO 004		
	Report Date: December 12, 2011	

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY2 processing activities:
 - Towed array survey activities were performed for ES Unit 0621
 - Issued drawing to identify biased and systematic sample collection locations for ES Unit 0621.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 34 truckloads of material were received for processing.
 - ES Unit 0633 was prepared for upcoming towed array survey activities.
 - Collected 1 biased and 18 systematic soil samples from both ES Units 0615 and 0631 and submitted to the on-site laboratory for analysis.
 - Staged ES Units 0557 and 0616 in the stockpile area pending receipt of the offsite analytical results.
 - ES Units 0627 and 0632 were prepared for transfer to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- After evaluating the data, the RASO concurred with the following:
 - Transfer of ES Units 0606, 0607, and 0609 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.
 - Reuse of ES Unit 0581 as trench backfill.
 - Staging ES Units 0627 and 0632 pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 403
 - Swipe samples received for Protean counts: 154
 - Air samples received: 1
 - Samples analyzed by gamma spectroscopy: 112
 - Gamma spectroscopy samples recounted: 4
 - Protean swipe samples counted: 104
 - Protean air samples counted: 1
- A total of 729 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Portal Monitor Activities
 - A total of 56 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 59 truckloads of material exited HPNS through the portal monitor with no alarms.
- Radiological support was provided to CKY by the HPNS Team during landscaping activities at Parcel E-2.
- One incoming materials and equipment survey was performed by the HPNS Team.



Report Date: December 12, 2011	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Buildings 506, 507, 509, 510/510A, and 517 Sites, the Building 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

• Soil grading activities were performed by the HPNS Team in preparation for upcoming gamma scan surveys.

Building 507 Site

• The HPNS Team performed exploratory excavations to identify the spatial extent of the building foundation and to estimate the volume of debris requiring removal.

Building 509 Site

• The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 2. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.

Building 517 Site

• The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 7 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 9,464 cpm. In addition, 43 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 521

The HPNS Team performed Class 1 survey activities for Survey Unit 6. A total of 200 alpha/beta scan readings were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated for Trench Unit No. 215 by the HPNS Team.
- The HPNS Team and the RASO concurred with backfilling Trench Unit No. 223.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plans



Report Date: January 12, 2012 RAD EMAC - CTO 002

Overview

The HPNS Team continued field activities in Work Areas #31, #33, and #34. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were continued in Trench Unit No. 231 by the HPNS Team.
- The RSOR provided the HPNS Team with survey results for the excavated manhole detailed in Survey No. HPS-PCPIPE-010612-043 and pipe sections detailed in Survey No. HPS-PCPIPE-010612-044. Because no activity above the release criteria was identified, these manholes and pipe sections were released and staged for transfer to the DON non-LLRW waste contractor.
- The RSOR provided the HPNS Team with survey results for the pipe sections detailed in Survey No. HPS-PCPIPE-010912-045; no activity above the release criteria was identified. These pipe sections will remain in place due to proximity to the Building 208 foundation and Drydock Nos. 2 and 3.
- The HPNS Team provided the RASO with analytical results for the systematic samples collected from Trench Unit No. 237; no activity above the release criteria was identified.
- The HPNS Team provided the RASO with analytical results for the investigative samples collected from Trench Unit No. 238. Characterization and remediation will be performed due to ²²⁶Ra activity above the release criteria as follows:

 - Sample Point 8 (02-PCT-238-008) with ²²⁶Ra at 1.784 pCi/g Sample Point 10 (02-PCT-238-010) with ²²⁶Ra at 1.894 pCi/g
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 234 along with a request for backfill concurrence.
- The HPNS Team continued swale and drain pipe installation and site restoration activities along previously backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: January 12, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - ES Units 0422 and 0628 were staged in the stockpile areas pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0633 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The on-site analytical data for ES Unit 0630 was submitted to the RASO for review with a request for concurrence to stage the material pending receipt of the off-site analytical results.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 43
 - Swipe samples received for Protean counts: 94
 - Air samples received: 6
 - Samples analyzed by gamma spectroscopy: 153
 - Gamma spectroscopy samples recounted: 5
 - Protean swipe samples counted: 22
 - Protean air samples counted: 6

- A total of 389 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 80 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
 - A total of 57 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 57 truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of five outgoing materials and equipment surveys were performed by the HPNS Team.



Report Date: January 12, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Buildings 510/510A, 517, and 520 Sites, the Building 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 510/510A Site

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 1.
- Approximately 120 cubic yards of asphalt and concrete was removed, scanned, and transferred to the Salvage Yard pending receipt of the Class 1 soil survey unit results.

Building 517 Site

The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 19 characterization gamma static measurements were logged with a maximum measurement of 9,558 cpm. In addition, 19 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is the process of reviewing these data.

Building 520 Site

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 5. Characterization and remediation will be performed due to ¹³⁷Cs contamination as follows:

 - Sample Point 5 (07520-S0005-F005-01) with 137 Cs at 0.2651 pCi/g Sample Point 7 (07520-S0005-F007-01) with 137 Cs at 0.2606 pCi/g Sample Point 9 (07520-S0005-F009-01) with 137 Cs at 0.2713 pCi/g

 - Sample Point 23 (07520-S0005-F023-01) with ¹³⁷Cs at 0.2491 pCi//g
 - Sample Point 24 (07520-S0005-F024-01) with ¹³⁷Cs at 0.1239 pCi/g

Building 521

The HPNS Team continued Class 3 survey activities for Survey Unit 8. A total of 20 gamma static measurements were logged with a maximum measurement of 6,934 cpm. A total of 20 alpha/beta static measurements also were logged. The preliminary data does not indicate the presence of alpha/beta activity above the release limits. In addition, 20 swipe samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Survey activities were performed by the HPNS Team for excavated Manholes MH1256, MH1298, MH1299, MH1311, MH1312, MH1313, MH1314, MH1315, MH1316, MH1317, MH1318, MH1327, MH1328, and MH1330 (Survey No. HPS-PEPIPE-011212-042). A total of 28 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The HPNS Team continued pre-survey activities in Work Area #36 including the removal and sizing of metal rebar from concrete pads.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plan



Report Date: January 19, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31, #32, and #33. Details of the work activities performed are provided in the sections below.

North Pier

• Pre-survey activities were continued by the HPNS Team including collection of reference area gamma static measurements from Building 270.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Soil compaction and testing was continued for previously backfilled areas of Trench Unit No. 231. Based on the results, backfill activities were completed by the HPNS Team in this trench unit.
- The HPNS Team provided the RASO with the Internal Draft SUPR for Trench Unit No. 227 along with a request for concurrence to backfill.
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



Report Date: January 19, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - Issued drawing to identify characterization sample collection locations for ES Unit 0634.
 - Five biased soil samples were collected from ES Unit 0634 and submitted to the on-site laboratory for analysis.
 - ES Units 0550 and 0630 were staged in the stockpile area pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0615 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 120
 - Swipe samples received for Protean counts: 7
 - Air samples received: 5
 - Samples analyzed by gamma spectroscopy: 58
 - Gamma spectroscopy samples recounted: 41
- A total of 290 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 150 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
 - A total of 41 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of two incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.



Report Date: January 19, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

• The HPNS Team issued record drawings to identify the post-remediation sample collection locations in Class 1 Survey Unit 4.

Building 517 Site

- Approximately 34 cubic yards of soil was remediated from Survey Unit 2 and placed in LLRW bins GFLU001194T15, GFLU001237T18, and GFLU002048 for disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 9,946 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is the process of reviewing these data

500 Series Area

- The HPNS Team continued preparing the 500 Series Area for towed array survey activities including soil grading and removal of metal rebar from the concrete pad located in Survey Units 12 and 13.
- Approximately 12 cubic yards of asphalt from Survey Unit 8 was removed, scanned, and transferred to the Salvage Yard pending receipt of the Class 1 soil survey unit results.
- The HPNS Team performed gamma scan surveys over Survey Units 19 and 21.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 20 A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,001 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 21 A total of 36 systematic gamma static measurements were logged with a maximum measurement of 6,803 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

The RSO is in the process of reviewing the survey data for Survey Units 20 and 21.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Trench segment 07-E36-39-1K crushed pipe debris was placed in LLRW bin GFLU001111 for disposal.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plan



Report Date: February 2, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

 Approximately 492 cubic yards of asphalt covering Survey Units 9, 10, and 11 was removed, scanned, and transferred to Drydock No. 4 pending receipt of the Class 1 survey unit results; no elevated scan readings were identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

 The HPNS Team excavated approximately 264 cubic yards of soil from Work Area #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

02-C34-28-2P
02-C34-28-4B
02-C34-28-4E
40 linear feet completed
34 linear feet completed
116 linear feet completed

- A total of 190 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1007 and MH1009 excavated from trench segments 02-C34-28-2P and 02-C34-28-4E were placed on plastic pending further activities.
- A sediment sample was collected from excavated Manhole MH1007 (02-PCMH1007-060-01) and submitted to the on-site laboratory for analysis.
- Plastic pipe liner associated with trench segments 02-C34-28-2P, -4B, and -4E was placed in LLRW bin GFLU000262 for disposal.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: February 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of 22 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Unit 0640.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 91
 - Swipe samples received for Protean counts: 7
 - Air samples received: 16
 - Samples analyzed by gamma spectroscopy: 93
 - Gamma spectroscopy samples recounted: 10
 - Protean swipe samples counted: 48
 - Protean air samples counted: 16
- A total of 343 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 35 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
 - A total of five empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 41 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.



Report Date: February 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 1 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 8,805 cpm. In addition, 37 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team continued soil grading and debris removal for the 500 Series Area in preparation for towed array survey activities.
- The HPNS Team performed towed array gamma scan surveys over Survey Unit 18.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 6 A total of 4 biased gamma static measurements were logged with a maximum measurement of 7,710 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 8 A total of 4 biased gamma static measurements were logged with a maximum measurement of 8,550 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 6 and 8.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Approximately 10 cubic yards of soil was remediated from Trench Unit No. 225 (trench segment 07-E36-14-1Q) by the HPNS Team and placed in LLRW bins BFLU000011, GFLU001149T17, and GFLU001237T18 for off-site disposal.
- Approximately 5 cubic yards of soil was remediated from Trench Unit No. 228 (trench segment 07-E36-14-1E) by the HPNS Team and placed in LLRW bin BFLU000011 for off-site disposal.

- A total of 23 investigative samples were collected from Trench Unit No. 241 by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for investigative sample collection in Trench Unit No. 241.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



Report Date: February 21, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31 and #32. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team continued removing railroad ties and track and performing soil grading; metal track and wooden ties were sized and staged pending further activities.
- Survey activities were performed by the HPNS Team on metal railroad plates and rail spikes (Survey Nos. HPS-A-NPR-008 and HPS-A-NPR-009); a total of 108 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for metal rail plates and spikes, and wooden railroad ties detailed in Survey Nos. HPS-A-NPR-002, HPS-A-NPR-003, and HPS-A-NPR-004. Because no activity above the release criteria was identified, 108 items were released and prepared for transfer to the recycling stockpiles near Building 411.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 236 by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



Report Date: February 21, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of 32 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Unit 0618.
 - Collected 10 biased and 18 systematic soil samples from ES Unit 0642 and submitted to the on-site laboratory for analysis.
 - ES Unit 0639 was staged in the stockpile area pending receipt of the off-site analytical results.
 - Began transfer of ES Unit 0641 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0635 and a request for concurrence to use the material as trench backfill.
- After evaluating the data, the RASO concurred with the following:
 - Staging of ES Unit 0641 pending receipt of the off-site analytical data prior to transferring the material to the DON non-LLRW contractor for disposal at a CERCLA landfill.
 - Staging ES Unit 0636 pending receipt of the off-site analytical results.

Basewide Support

One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 53
 - Swipe samples received for Protean counts: 72
 - Air samples received: 8
 - Samples analyzed by gamma spectroscopy: 71
 - Gamma spectroscopy samples recounted: 22
 - Protean air samples counted: 18
- A total of 280 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 137 samples were sent to TestAmerica St. Louis for analysis.



Report Date: February 21, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 7 characterization gamma static measurements were logged with a maximum measurement of 8,894 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 521

• Vent and drain surveys were performed by the HPNS Team for the furnace system and exhaust stacks; a total of 20 swipe sample were collected and submitted to the on-site laboratory for analysis (Survey No. HPS-VD-B521-001).

Shacks 79 and 80

- The HPNS Team provided the RASO with off-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 1. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 5 (077980-S0001-F005-01) with ¹³⁷Cs at 0.131 pCi/g
 - Sample Point 19 (077980-S0001-F019-01) with ¹³⁷Cs at 0.125 pCi/g

500 Series Area

- The HPNS Team excavated approximately 384 cubic yards of sand/soil material from Survey Units 12 and 13 and transferred the materials to RSY4 for further activities.
- Towed array gamma scan surveys were performed over Survey Units 15 and 16.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• Backfill activities were competed for Trench Unit Nos. 217 and 224 by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: March 5, 2012 RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 5.
- Perimeter fencing maintenance and reconfiguration activities were performed on the west end of Work Area #32 near Blandy Street.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated in Trench Unit No. 232 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



	Report Date: March 05, 2012	RMAC – CTO 004
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Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 27 truckloads of material at RSY4 for processing.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 14
 - Swipe samples received for Protean counts: 85
 - Air samples received: 6
 - Samples analyzed by gamma spectroscopy: 60
 - Gamma spectroscopy samples recounted: 11
 - Protean swipe samples counted: 61
 - Protean air samples counted: 5
- A total of 249 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



Report Date: March 5, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four characterization gamma static measurements were logged with a maximum measurement of 7,884 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team resumed excavation of the sand/soil from Survey Unit 13 and staged the material pending transfer to the RSY4 for processing.
- Towed array gamma scan surveys were performed over Survey Unit 2.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 3 A biased gamma static measurements was logged with a measurement of 6,661 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 15 A total of eight characterization gamma static measurements were logged with a maximum measurement of 6,077 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 3 and 15.
- The HPNS Team issued drawings to identify locations for biased sample collection in Class 1 Survey Unit 3 and locations for characterization sample collection in Class 1 Survey Unit 15.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

 The HPNS Team excavated approximately 324 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

_	07-520-14-2A	35 linear feet completed
_	07-520-14-2B	6 linear feet completed
_	07-E36-00-4N	28 linear feet completed
_	07-E36-00-4P	86 linear feet completed
_	07-E36-00-4Q	65 linear feet completed
_	07-E36-00-4T	3 linear feet completed
_	07-E36-14-2A	28 linear feet completed

- A total of 251 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe excavated from trench segment 07-E36-00-4P were placed on plastic pending further activities.
- The HPNS Team investigated trench segments 07-520-14-2A and 07-520-14-2B for the presence of pipe. Although depicted on the design drawing, no pipe was found during these investigations
- A sediment sample was collected from pipe excavated from trench segment 07-E36-00-4P (07-PEPI-0026-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were completed for Trench Unit No. 235 by the HPNS Team.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



Report Date: April 2, 2012 RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #34 and #35. Details of the work activities performed are provided in the sections below.

North Pier

• Approximately 312 cubic yards of asphalt removed from Survey Unit 5 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the excavated manholes detailed in Survey Nos. HPS-PCPIPE-032812-047 and HPS-PCPIPE-032812-048. Because no activity above the release criteria was identified, these 22 manholes were released for transfer to the recycling stockpiles near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



Report Date: April 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of 37 truckloads of material were received for processing.
 - Began transfer of ES Unit 0653 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 5
 - Air samples received: 8
 - Samples analyzed by gamma spectroscopy: 66
 - Gamma spectroscopy samples recounted: 15
 - Protean swipe samples counted: 16
 - Protean air samples counted: 7
- A total of 127 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.

Basewide Support

- Portal Monitor Activities
 - A total of 57 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 57 truckloads of material exited HPNS through the portal monitor with no alarms.



	Report Date: April 2, 2012	RMAC – CTO 07
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Overview

The HPNS Team continued field activities for Building 506, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four post-remediation gamma static measurements were logged with a maximum measurement of 6,846 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team prepared Survey Unit 3 for additional towed array survey activities including the removal of asphalt exposed during perimeter fencing modifications.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 1.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 52 cubic yards of soil was remediated from Survey Units 1 and 3 by the HPNS Team and placed in LLRW bins ERRU000151, GFLU002020, and GFLU002136 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A systematic gamma static measurement was logged at 4,448 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 9, 17, 20, and 21; no further contamination was identified.

• The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 1, 16, 17, 18, and 19.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 444 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

-	07-506-14-1C	12 linear feet completed
-	07-E36-14-1C	32 linear feet completed
-	07-E36-14-8S	2 linear feet completed
-	07-E36-38-1Y	40 linear feet completed
-	07-E36-38-1Z	6 linear feet completed
-	07-E36-38-3E	72 linear feet completed
-	07-E36-38-3H	30 linear feet completed
-	07-E36-38-8B	2 linear feet completed
-	07-E36-38-8C	4 linear feet completed

- A total of 192 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 8 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1270 was placed on plastic pending further activities.
- Perimeter fencing along west edge of Work Area #36 was reconfigured by the HPNS Team to facilitate upcoming survey activities.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Removal Action Completion Report



Report Date: April 10, 2012	RAD EMAC – CTO 002
Report Date. April 10, 2012	KAD EWAC - CTO 002

Overview

The HPNS Team continued field activities in Work Areas #33 and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the pipe sections detailed in Survey Nos. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050. Because no activity above the release criteria was identified, these 32 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 247.
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



Report Date: April 10, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 44 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - ES Units 0658 and 0680 were prepared for upcoming towed array activities.
 - Issued drawings to identify biased, systematic, and remediation sample collection locations for ES Units 0626, 0652, 0655, 0659, 0674, and 0675.
 - A total of 6 biased and 18 systematic soil samples were collected from ES Unit 0659 and submitted to the on-site laboratory for analysis.
 - ES Unit 0656 was prepared for transfer to the stockpile area.
 - ES Unit 0654 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The off-site analytical data for ES Unit 0618 was submitted to the RASO for review. The RASO concurred with transferring the material to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
 - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 46 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 78
 - Swipe samples received for Protean counts: 9
 - Air samples received: 1
 - Samples analyzed by gamma spectroscopy: 85
 - Gamma spectroscopy samples recounted: 1
 - Protean swipe samples counted: 79
 - Protean air samples counted: 1
- A total of 92 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.
- A total of 114 samples were sent to TestAmerica St. Louis for analysis.



Report Date: April 10, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 8,515 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 2. Characterization and remediation will be performed due to the presence of ¹³⁷Cs activity above the release criteria at Sample Point 7 (0.17 pCi/g).
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, remediation and post-remediation sample collection will be performed.
- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Unit 17 and systematic sample collection locations s in Class 1 Survey Units 3 and 18.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 528 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:

-	07-E36-00-6X	15 linear feet completed
-	07-E36-00-6Y	44 linear feet completed
-	07-E36-00-6Z	50 linear feet completed
-	07-E36-00-8Y	34 linear feet completed
-	07-E36-00-8Z	24 linear feet completed
_	07-E36-00-9K	5 linear feet completed

- A total of 109 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 63 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manholes MH1280 and MH1281 were placed on plastic pending further activities.
- A sediment sample was collected from Manhole MH1281 (07-PEMH1281-012-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Crushed debris and Manhole MH1275 were placed in LLRW bin ERRU000161 for offsite disposal.
- Backfill activities were initiated for Trench Unit Nos. 225 and 228 by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report

	Survey	Sample	Sample	Sample	Date
Area	Unit	Point	Туре	ID	Collected
517	2	45.1	Biased	07517-S0002-F001-01	12-Dec-11
517	2	2	Biased	07517-S0002-F002-01	12-Dec-11
517	2	3	Biased	07517-S0002-F003-01	12-Dec-11
517	2	4	Biased	07517-S0002-F004-01	12-Dec-11
517	2	5	Biased	07517-S0002-F005-01	12-Dec-11
517	2	6	Biased	07517-S0002-F006-01	12-Dec-11
517	2	7	Biased	07517-S0002-F007-01	12-Dec-11
517	2	8	Systematic	07517-S0002-F008-01	12-Dec-11
517	2	9	Systematic	07517-S0002-F009-01	12-Dec-11
517	2	10	Systematic	07517-S0002-F010-01	12-Dec-11
517	2	11	Systematic	07517-S0002-F011-01	12-Dec-11
517	2	12	Systematic	07517-S0002-F012-01	12-Dec-11
517	2	13	Systematic	07517-S0002-F013-01	12-Dec-11
517	2	14	Systematic	07517-S0002-F014-01	12-Dec-11
517	2	15	Systematic	07517-S0002-F015-01	12-Dec-11
517	2	16	Systematic	07517-S0002-F016-01	12-Dec-11
517	2	17	Systematic	07517-S0002-F017-01	12-Dec-11
517	2	18	Systematic	07517-S0002-F018-01	12-Dec-11
517	2	19	Systematic	07517-S0002-F019-01	12-Dec-11
517	2	20	Systematic	07517-S0002-F020-01	12-Dec-11
517	2	21	Systematic	07517-S0002-F021-01	12-Dec-11
517	2	22	Systematic	07517-S0002-F022-01	12-Dec-11
517	2	23	Systematic	07517-S0002-F023-01	12-Dec-11
517	2	24	Systematic	07517-S0002-F024-01	12-Dec-11
517	2	25	Systematic	07517-S0002-F025-01	12-Dec-11
517	2	26	Systematic	07517-S0002-F026-01	12-Dec-11
517	2	27	Systematic	07517-S0002-F027-01	12-Dec-11
517	2	28	Systematic	07517-S0002-F028-01	12-Dec-11
517	2	29	Systematic	07517-S0002-F029-01	12-Dec-11
517	2	30	Systematic	07517-S0002-F030-01	12-Dec-11
517	2	31	Systematic	07517-S0002-F031-01	12-Dec-11
517	2	32	Systematic	07517-S0002-F032-01	12-Dec-11
517	2	33	Systematic	07517-S0002-F033-01	12-Dec-11
517	2	34	Systematic	07517-S0002-F034-01	12-Dec-11
517	2	35	Systematic	07517-S0002-F035-01	12-Dec-11
517	2	36	Systematic	07517-S0002-F036-01	12-Dec-11
517	2	37	Systematic	07517-S0002-F037-01	12-Dec-11
517	2	38	Systematic	07517-S0002-F038-01	12-Dec-11
517	2	39	Systematic	07517-S0002-F039-01	12-Dec-11
517	2	40	Systematic	07517-S0002-F040-01	12-Dec-11
517	2	41	Systematic	07517-S0002-F041-01	12-Dec-11
517	2	42	Systematic	07517-S0002-F042-01	12-Dec-11
517	2	43	Systematic	07517-S0002-F043-01	12-Dec-11
517	2	44	Characterization	07517-S0002-F044-01	12-Jan-12
517	2	45	Characterization	07517-S0002-F045-01	12-Jan-12
517	2	46	Characterization	07517-S0002-F046-01	12-Jan-12
517	2	47	Characterization	07517-S0002-F047-01	12-Jan-12
517	2	48	Characterization	07517-S0002-F048-01	12-Jan-12
517	2	49	Characterization	07517-S0002-F049-01	12-Jan-12
517	2	50	Characterization	07517-S0002-F050-01	12-Jan-12
517	2	51	Characterization	07517-S0002-F051-01	12-Jan-12
517	2	52	Characterization	07517-S0002-F052-01	12-Jan-12

On-Site Laboratory (pCi/g)				
K-40	Ra-226	Cs-137	Bi-214	Pb-214
14.57	1.793	-0.007908	0.9212	1.077
13.7	1.729	0.00425	1.062	1.071
13.38	1.838	-0.002816	1.084	1.148
17.01	0.3222	-0.002556	0.6817	0.7362
15.95	0.812	-0.008397	0.598	0.6132
17.79	0.873	0.001905	0.4365	0.6143
18.45	0.8882	-0.005043	0.4547	0.6017
17.03	1.035	-0.002108	0.7789	0.8703
17.42	0.9294	0	0.7386	0.855
18.23	0.7109	-0.01334	0.725	0.7229
11.44	0.5055	0.01442	0.5093	0.5747
12.87	0.6684	-0.01473	0.4262	0.5235
14.43	3.803	-0.01851	2.372	2.476
13.1	2.481	-0.008261	1.73	1.827
14.29	2.046	0.008713	1.223	1.353
14.2	1.701	0.005234	1.635	1.681
10.77	0.9704	-0.001129	0.3679	0.4878
10.61	0.3254	0.009511	0.2953	0.5098
8.391	0.3543	0.001006	0.3331	0.3603
12.85	0.9633	0.01818	0.5032	0.5961
11.3	0.6022	0.00649	0.2723	0.4389
12.79	0.5336	0.01837	0.4	0.4706
13.81	0.7092	0.003023	0.6197	0.6552
13.87	0.6536	0	0.6175	0.6384
13.06	0.7848	0.007467	0.4886	0.5995
14.2	0.8044	-0.00686	0.6267	0.6843
5.401	0.5599	0.0005004	0.2297	0.3371
14.96	0.803	0.001295	0.5735	0.6863
15.07	0.6499	0.007813	0.5731	0.7231
14.5	0.9282	-0.00711	0.6613	0.7377
13.39	0.4525	0.01404	0.6022	0.6795
13.94	0.6558	0	0.505	0.6031
15.14	0.6507	0.01023	0.6365	0.6129
14.28	0.8655	0.01559	0.4783	0.6695
13.46	0.8594	0.02176	0.4704	0.6135
15.13	1.224	0.017	0.6901	0.6915
10.93	0.5857	0.02068	0.2603	0.4721
11.2	1.008	0.009354	0.502	0.5702
14.1	0.2553	-0.0008586	0.4775	0.6164
17.67	1.151	0.01056	0.8249	0.8027
13.06	0.7284	0.01624	0.5635	0.6122
12.31	1.421	-0.006136	0.8049	1.147
17.19	0.6279	-0.00326	0.6542	0.6478
12.58	0.1509	-0.0005076	0.3232	0.4743
12.9	1.032	-0.005945	0.4594	0.3422
12.51	0.812	-0.001039	0.3153	0.3805
13.6	0.8205	0.002865	0.2352	0.415
13.38	0.4986	0.007744	0.4544	0.4378
12.22	0.4907	-0.001855	0.2837	0.4477
12.61	0.3725	0.002652	0.4365	0.3721
12.87	0.4867	0.006751	0.3444	0.3249
10	0.3728	0.006848	0.4545	0.356

K-40	Ra-226	Cs-137	Bi-214	Pb-214

Area	Survey	Sample		Sample	Date
	Unit	Point	Туре	ID	Collected
517	2	53	Characterization	07517-S0002-F053-01	12-Jan-12
517	2	54	Characterization	07517-S0002-F054-01	12-Jan-12
517	2	55	Characterization	07517-S0002-F055-01	12-Jan-12
517	2	56	Characterization	07517-S0002-F056-01	12-Jan-12
517	2	57	Characterization	07517-S0002-F057-01	12-Jan-12
517	2	58	Characterization	07517-S0002-F058-01	12-Jan-12
517	2	59	Characterization	07517-S0002-F059-01	12-Jan-12
517	2	60	Characterization	07517-S0002-F060-01	12-Jan-12
517	2	61	Characterization	07517-S0002-F061-01	12-Jan-12
517	2	62	Characterization	07517-S0002-F062-01	12-Jan-12
517	2	63	Post-Remediation	07517-S0002-F063-01	19-Jan-12
517	2	64	Post-Remediation	07517-S0002-F064-01	19-Jan-12
517	2	65	Post-Remediation	07517-S0002-F065-01	19-Jan-12
517	2	66	Post-Remediation	07517-S0002-F066-01	19-Jan-12
517	2	67	Post-Remediation	07517-S0002-F067-01	19-Jan-12
517	2	68	Post-Remediation	07517-S0002-F068-01	19-Jan-12
517	2	69	Post-Remediation	07517-S0002-F069-01	19-Jan-12
517	2	70	Post-Remediation	07517-S0002-F070-01	19-Jan-12
517	2	71	Biased	07517-S0002-F071-01	02-Feb-12
517	2	72	Systematic	07517-S0002-F072-01	02-Feb-12
517	2	73	Systematic	07517-S0002-F073-01	02-Feb-12
517	2	74	Systematic	07517-S0002-F074-01	02-Feb-12
517	2	75	Systematic	07517-S0002-F075-01	02-Feb-12
517	2	76	Systematic	07517-S0002-F076-01	02-Feb-12
517	2	77	Systematic	07517-S0002-F077-01	02-Feb-12
517	2	78	Systematic	07517-S0002-F078-01	02-Feb-12
517	2	79	Systematic	07517-S0002-F079-01	02-Feb-12
517	2	80	Systematic	07517-S0002-F080-01	02-Feb-12
517	2	81	Systematic	07517-S0002-F081-01	02-Feb-12
517	2	82	Systematic	07517-S0002-F082-01	02-Feb-12
517	2	83	Systematic	07517-S0002-F083-01	02-Feb-12
517	2	84	Systematic	07517-S0002-F084-01	02-Feb-12
517	2	85	Systematic	07517-S0002-F085-01	02-Feb-12
517	2	86	Systematic	07517-S0002-F086-01	02-Feb-12
517	2	87	Systematic	07517-S0002-F087-01	02-Feb-12
517	2	88	Systematic	07517-S0002-F088-01	02-Feb-12
517	2	89	Systematic	07517-S0002-F089-01	02-Feb-12
517	2	90	Systematic	07517-S0002-F090-01	02-Feb-12
517	2	91	Systematic	07517-S0002-F091-01	02-Feb-12
517	2	92	Systematic	07517-S0002-F092-01	02-Feb-12
517	2	93	Systematic	07517-S0002-F093-01	02-Feb-12
517	2	94	Systematic	07517-S0002-F094-01	02-Feb-12
517	2	95	Systematic	07517-S0002-F095-01	02-Feb-12
517	2	96	Systematic	07517-S0002-F096-01	02-Feb-12
517	2	97	Systematic	07517-S0002-F097-01	02-Feb-12
517	2	98	Systematic	07517-S0002-F098-01	02-Feb-12
517	2	99	Systematic	07517-S0002-F099-01	02-Feb-12
517	2	100	Systematic	07517-S0002-F100-01	02-Feb-12
517	2	101	Systematic	07517-S0002-F101-01	02-Feb-12
517	2	102	Systematic	07517-S0002-F102-01	02-Feb-12
517	2	103	Systematic	07517-S0002-F103-01	02-Feb-12
517	2	104	Systematic	07517-S0002-F104-01	02-Feb-12

	<u>On-</u>	Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
12.82	0.4189	-0.0002569	0.2745	0.3755
12.99	0.6403	-0.0001639	0.3745	0.4417
13.62	0.8739	0.01389	0.3899	0.3661
11.25	1.044	0.0145	0.417	0.4298
8.638	0.4514	0.007671	0.4733	0.5121
8.042	0.8903	-0.01241	0.3288	0.3569
13.17	0.8123	0.002289	0.4208	0.5186
11.2	0.6652	-0.008311	0.4125	0.4069
12.24	0.6225	-0.009485	0.3635	0.374
12.51	0.8759	0.002594	0.3136	0.5255
25.21	1.248	-0.00102	1.016	1.129
26.09	1.27	0	1.004	1.114
27.72	1.54	-0.005191	1.141	1.173
28.69	0.6624	0	1.057	1.263
17.62	0.7224	-0.007909	0.7074	0.6486
13.23	0.6853	-0.01103	0.5062	0.5298
18.79	0.3369	-0.002105	0.592	0.7131
21.91	1.335	-0.0005678	0.7979	0.8523
27.36	1.18	0.0008843	0.9202	1.134
12.37	0.5988	0.001802	0.3511	0.3574
8.529	0.6409	0	0.1934	0.412
8.629	0.5914	-0.0002751	0.472	0.6522
9.062	0.107	-0.01015	0.1096	0.02634
16.76	0.4228	-0.003298	0.5703	0.4841
8.756	1.022	0.004358	0.716	0.8057
10.3	1.132	0.003877	0.4553	0.4595
13.67	1.123	-0.0005814	0.7524	0.723
9.694	0.696	0	0.4316	0.3759
26.94	1.647	0.001182	0.7436	0.8743
25.36	0.9986	-0.009699	0.834	0.8177
28.97	1.093	-0.0001782	0.7573	0.7836
17.85	1.275	0.006366	0.7886	0.747
18.27	0.7943	-0.008896	0.7572	0.8525
19.19	1.239	0.003711	0.7582	0.757
6.014	0.3571	0	0.1645	0.23
24.48	1.138	-0.01157	0.8108	0.9014
28.55	1.451	-0.001202	1.019	1.042
27.31	1.3	0	0.9204	1.06
27.24	0.9802	-0.004081	0.8879	1.001
20.68	1.156	-0.01478	0.7378	0.9759
16.07	0.7407	0.004073	0.5896	0.7442
9.031	0.007786	-0.00002648	0.287	0.3863
25.21	1.563	-0.01944	1.139	1.172
29.66	2.405	-0.00113	1.104	1.134
27.53	1.181	0	1.03	1.139
17.31	1.114	-0.008361	0.7126	0.771
12.18	0.419	0.006857	0.2621	0.4367
8.392	0.5421	0.008547	0.2689	0.2503
12.66	0.4389	0.003127	0.3495	0.4427
24.57	1.06	0.00215	0.9674	1.008
15.58	0.8928	0.00979	0.602	0.7729
11.49	0.8024	0	0.4857	0.4944

K-40	Ra-226	Cs-137	Bi-214	Pb-214
	ELECTRIC SEC			

Area	Survey	Sample	Sample	Sample	Date
Alea	Unit	Point	Туре	ID	Collected
517	2	105	Systematic	07517-S0002-F105-01	02-Feb-12
517	2	106	Systematic	07517-S0002-F106-01	02-Feb-12
517	2	107	Systematic	07517-S0002-F107-01	02-Feb-12
517	2	108	Characterization	07517-S0002-F108-01	21-Feb-12
517	2	109	Characterization	07517-S0002-F109-01	21-Feb-12
517	2	110	Characterization	07517-S0002-F110-01	21-Feb-12
517	2	111	Characterization	07517-S0002-F111-01	21-Feb-12
517	2	112	Characterization	07517-S0002-F112-01	21-Feb-12
517	2	113	Characterization	07517-S0002-F113-01	21-Feb-12
517	2	114	Characterization	07517-S0002-F114-01	21-Feb-12
517	2	115	Characterization	07517-S0002-F115-01	05-Mar-12
517	2	116	Characterization	07517-S0002-F116-01	05-Mar-12
517	2	117	Characterization	07517-S0002-F117-01	05-Mar-12
517	2	118	Characterization	07517-S0002-F118-01	05-Mar-12
517	2	119	Post-Remediation	07517-S0002-F119-01	02-Apr-12
517	2	120	Post-Remediation	07517-S0002-F120-01	02-Apr-12
517	2	121	Post-Remediation	07517-S0002-F121-01	02-Apr-12
517	2	122	Post-Remediation	07517-S0002-F122-01	02-Apr-12
517	2	123	Systematic	07517-S0002-F123-01	10-Apr-12
517	2	124	Systematic	07517-S0002-F124-01	10-Apr-12
517	2	125	Systematic	07517-S0002-F125-01	10-Apr-12
517	2	126	Systematic	07517-S0002-F126-01	10-Apr-12
517	2	127	Systematic	07517-S0002-F127-01	10-Apr-12
517	2	128	Systematic	07517-S0002-F128-01	10-Apr-12
517	2	129	Systematic	07517-S0002-F129-01	10-Apr-12
517	2	130	Systematic	07517-S0002-F130-01	10-Apr-12
517	2	131	Systematic	07517-S0002-F131-01	10-Apr-12
517	2	132	Systematic	07517-S0002-F132-01	10-Apr-12
517	2	133	Systematic	07517-S0002-F133-01	10-Apr-12
517	2	134	Systematic	07517-S0002-F134-01	10-Apr-12
517	2	135	Systematic	07517-S0002-F135-01	10-Apr-12
517	2	136	Systematic	07517-S0002-F136-01	10-Apr-12
517	2	137	Systematic	07517-S0002-F137-01	10-Apr-12
517	2	138	Systematic	07517-S0002-F138-01	10-Apr-12
517	2	139	Systematic	07517-S0002-F139-01	10-Apr-12
517	2	140	Systematic	07517-S0002-F140-01	10-Apr-12
517	2	141	Systematic	07517-S0002-F141-01	10-Apr-12
517	2	142	Systematic	07517-S0002-F142-01	10-Apr-12
517	2	143	Systematic	07517-S0002-F143-01	10-Apr-12
517	2	144	Systematic	07517-S0002-F144-01	10-Apr-12
517	2	145	Systematic	07517-S0002-F145-01	10-Apr-12
517	2	146	Systematic	07517-S0002-F146-01	10-Apr-12
517	2	147	Systematic	07517-S0002-F147-01	10-Apr-12
517	2	148	Systematic	07517-S0002-F148-01	10-Apr-12
517	2	149	Systematic	07517-S0002-F149-01	10-Apr-12
517	2	150	Systematic	07517-S0002-F150-01	10-Apr-12
517	2	151	Systematic	07517-S0002-F151-01	10-Apr-12
517	2	152	Systematic	07517-S0002-F152-01	10-Apr-12
517	2	153	Systematic	07517-S0002-F153-01	10-Apr-12
517	2	154	Systematic	07517-S0002-F154-01	10-Apr-12
517	2	155	Systematic	07517-S0002-F155-01	10-Apr-12
517	2	156	Systematic	07517-S0002-F156-01	10-Apr-12

On-Site Laboratory (pCi/g)					
K-40	Ra-226	Cs-137	Bi-214	Pb-214	
12.67	0.6982	0.02004	0.2328	0.5136	
12.6	0.5822	-0.0001041	0.2716	0.4274	
5.807	0.1645	0.000456	0.1925	0.3036	
27.49	1.379	0	1.112	1.115	
29.48	1.855	0.0008791	1.248	1.318	
31.4	0.8928	0.009672	1.024	1.127	
30.86	1.682	-0.001429	1.236	1.489	
32.88	2.123	0	1.429	1.51	
31.34	1.801	0.003509	1.149	1.253	
31.92	2.199	-0.01804	1.345	1.267	
11.28	0.57	0	0.3371	0.4649	
10.63	0.585	0	0.4014	0.333	
11.32	0.5169	0.002896	0.3455	0.3992	
16.01	0.5566	0.1001	0.475	0.492	
12.19	0.8073	0.04502	0.3546	0.4939	
8.555	0.09381	0.01634	0.3212	0.3248	
9.352	0.4759	0.02841	0.2833	0.2486	
11.13	0.7225	0	0.4263	0.4153	
1.565	0.3047	-0.003487	0.2004	0.1034	
1.714	0.1986	-0.003474	0.07178	0.08444	
2.723	0.2228	-0.0004776	0.2718	0.1849	
1.599	0.3641	0	0.07279	0.05369	
1.643	0.5215	0	0.06677	0.1747	
1.916	0.218	-0.000169	0.1084	0.1425	
1.948	0.07245	-0.005154	0.1083	0.1785	
2.369	0.3549	0.01417	0.2324	0.1753	
2.127	0.1196	-0.004853	0.1977	0.1774	
3.031	0.4146	0.0009916	0.1295	0.2585	
1.628	0	-0.0005489	0.1309	0.1837	
1.49	0.1983	0	0.021	0.2448	
0.7055	0.3107	0.01188	0.1015	0.05593	
2.011	0.2813	-0.0001282	0.09571	0.1064	
1.575	0.6108	-0.003272	0.1106	0.1025	
0.9645	0.2614	-0.008344	0.09655	0.06224	
1.677	0.2239	-0.004593	0.1608	0.1358	
0.8011	0	0.005677	0.01267	0.1995	
1.43	0.1886	0.00003795	0.08116	0.1533	
2.328	0.0495	0.005777	0.1717	0.2391	
1.657	0.2341	0	0.08333	0.1584	
1.365	0.1241	0.009164	0.0579	0.06569	
1.694	0.05659	-0.001156	0.1646	0.2325	
2.04	0.3837	0	0.122	0.06929	
1.057	0.1451	-0.004289	-0.002028	0.08787	
1.173	0.6242	0.003668	0.1546	0.1879	
2.391	0.5082	0.004344	0.08803	0.2183	
1.195	0.5208	0.001873	0.2224	0.2491	
2.29	0.3266	0.001623	0.08394	0.1959	
1.595	0.3115	-0.004797	0.1819	0.1484	
1.116	0.4554	0.01332	0.0892	0.09616	
2.453	0.1518	0.01002	0.2079	0.1764	
1.327	0	-0.005852	0.1592	0.1841	
2.268	0.4993	-0.00005921	0.08584	0.1258	

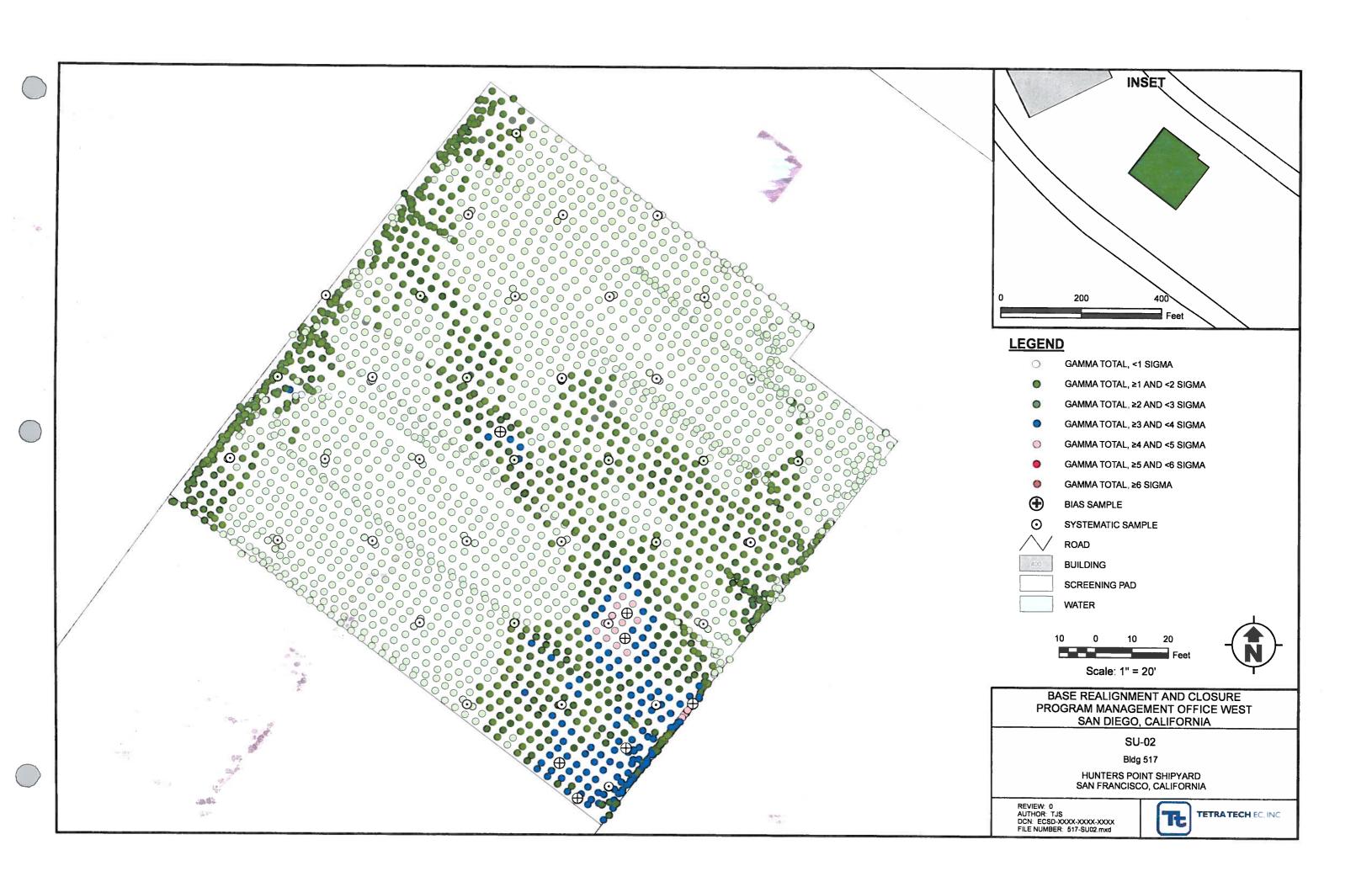
K-40	Ra-226	Cs-137	Bi-214	Pb-214
0.729	0.227	0.0154	0.227	0.121
2.04	0.187	0	0.187	0.199
1.33	0.185	0.0161	0.185	0.19
1.79	0.164	-0.00139	0.164	0.214
1.84	0.183	0.00787	0.183	0.223
2.18	0.172	-0.0000483	0.172	0.217
2.09	0.237	-0.0149	0.237	0.0989
1.3	0.11	0.00865	0.11	0.214
1.03	0.328	-0.0243	0.328	0.283
1.06	0.044	0.00788	0.044	0.268
1.67	0.235	-0.013	0.235	0.211
1.38	0.257	-0.00711	0.257	0.184
3.46	0.127	0.0122	0.127	0.22
1.59	0.0664	0.00521	0.0664	0.0991
0.95	0.184	-0.00934	0.184	0.135
1.68	0.114	-0.000225	0.114	0.174
1.97	0.0926	-0.00613	0.0926	0.254
1.66	0.0685	-0.00757	0.0685	0.215
1.72	0.17	0.000585	0.17	0.17
2.41	0.158	-0.0135	0.158	0.275
2.61	0.23	-0.0101	0.23	0.291
0.807	-0.0693	0	-0.0693	0.287
1.82	0.151	0.00968	0.151	0.196
1.88	0.192	-0.00757	0.192	0.22
2.06	0.101	0.00815	0.101	0.248
2.9	0.215	-0.0194	0.215	0.327
2.01	0.246	0	0.246	0.156
1.26	0.114	0.00776	0.114	0.258
2.27	0.218	-0.00576	0.218	0.221
2.16	0.22	0.00564	0.22	0.233
1.66	0.397	-0.00345	0.397	0.336
2.2	0.0978	-0.0154	0.0978	0.192
	0.251	0.006	0.251	0.216
1.5 2.64	0.087	0.0171	0.087	0.206

Area	Survey	Sample	Sample	Sample	Date
	Unit	Point	Туре	ID	Collected
517	2	157	Systematic	07517-S0002-F157-01	10-Apr-12
517	2	158	Systematic	07517-S0002-F158-01	10-Apr-12
517	2	159	Systematic	07517-S0002-F159-01	24-Oct-12
517	2	160	Systematic	07517-S0002-F160-01	24-Oct-12
517	2	161	Systematic	07517-S0002-F161-01	24-Oct-12
517	2	162	Systematic	07517-S0002-F162-01	24-Oct-12
517	2	163	Systematic	07517-S0002-F163-01	24-Oct-12
517	2	164	Systematic	07517-S0002-F164-01	24-Oct-12
517	2	165	Systematic	07517-S0002-F165-01	24-Oct-12
517	2	166	Systematic	07517-S0002-F166-01	24-Oct-12
517	2	167	Systematic	07517-S0002-F167-01	24-Oct-12
517	2	168	Systematic	07517-S0002-F168-01	24-Oct-12
517	2	169	Systematic	07517-S0002-F169-01	24-Oct-12
517	2	170	Systematic	07517-S0002-F170-01	24-Oct-12
517	2	171	Systematic	07517-S0002-F171-01	24-Oct-12
517	2	172	Systematic	07517-S0002-F172-01	24-Oct-12
517	2	173	Systematic	07517-S0002-F173-01	24-Oct-12
517	2	174	Systematic	07517-S0002-F174-01	24-Oct-12
517	2	175	Systematic	07517-S0002-F175-01	24-Oct-12
517	2	176	Systematic	07517-S0002-F176-01	24-Oct-12
517	2	177	Systematic	07517-S0002-F177-01	24-Oct-12
517	2	178	Systematic	07517-S0002-F178-01	24-Oct-12
517	2	179	Systematic	07517-S0002-F179-01	24-Oct-12
517	2	180	Systematic	07517-S0002-F180-01	24-Oct-12
517	2	181	Systematic	07517-S0002-F181-01	24-Oct-12
517	2	182	Systematic	07517-S0002-F182-01	24-Oct-12
517	2	183	Systematic	07517-S0002-F183-01	24-Oct-12
517	2	184	Systematic	07517-S0002-F184-01	24-Oct-12
517	. 2	185	Systematic	07517-S0002-F185-01	24-Oct-12
517	2	186	Systematic	07517-S0002-F186-01	24-Oct-12
517	2	187	Systematic	07517-S0002-F187-01	24-Oct-12
517	2	188	Systematic	07517-S0002-F188-01	24-Oct-12
517	2	189	Systematic	07517-S0002-F189-01	24-Oct-12
517	2	190	Systematic	07517-S0002-F190-01	24-Oct-12
517	2	191	Systematic	07517-S0002-F191-01	24-Oct-12
517	2	192	Systematic	07517-S0002-F192-01	24-Oct-12
517	2	193	Systematic	07517-S0002-F193-01	24-Oct-12
517	2	194	Systematic	07517-S0002-F194-01	24-Oct-12

	<u>On</u>	-Site Laboratory	(pCi/g)	
K-40	Ra-226	Cs-137	Bi-214	Pb-214
1.749	0.4585	0.006668	0.2172	0.2189
1.383	0	0	0.09365	0.1804
11.44	0.7173	0.01432	0.425	0.308
20.85	0.6151	0.03089	0.4153	0.6025
14.72	0.8078	-0.009389	0.5853	0.6378
11.46	0.483	0.002639	0.3899	0.4993
11.1	0.749	0.003549	0.443	0.5455
10.66	0.4646	0.0006247	0.3981	0.4759
7.291	0.602	-0.005257	0.3337	0.3551
20.34	0.8742	0.005631	0.646	0.7567
14.83	0.9636	0.006453	0.5181	0.614
15.21	1.012	-0.003672	0.6321	0.6532
9.947	0.8453	-0.009418	0.2748	0.3264
18.72	0.8567	-0.01032	0.7483	0.6929
7.946	1.117	0.009863	0.6485	0.7857
15.82	1.236	-0.002971	0.6715	0.735
11.91	0.5886	0.01488	0.4297	0.4092
16.49	0.9684	0.006546	0.582	0.6458
12.71	0.5473	0.006649	0.4167	0.5017
16.35	1.124	0.02842	0.6446	0.7164
20.48	0.5588	0.01017	0.5547	0.6909
9.944	0.2375	0	0.435	0.5057
9.242	1.597	0.003257	0.9948	1.023
11.25	0.9259	0.0007954	0.5406	0.6019
11.18	0.58	0.02216	0.4171	0.436
15.36	1.052	0.006488	0.5364	0.03713
17.61	0.9707	0	0.5341	0.6837
10.11	0.903	0	0.5694	0.5673
10.93	0.4182	0.00318	0.526	0.5372
13.69	1.228	0.01443	0.5627	0.6159
13.3	1.078	0.001909	0.4748	0.5424
19.36	1.012	0.0003739	0.5727	0.7429
20.1	1.323	0.007917	0.6425	0.7291
22.37	1.371	-0.009888	0.7374	0.7566
16.99	0.8318	0.007615	0.5318	0.5803
21.76	0.912	0	0.746	0.791
29.42	2.04	-0.01067	1.126	1.132
23.92	1.299	0.00429	0.6834	0.7908
4 > 1 485 · P	b-214 ≥ 1.485 (c	The state of the s		

Off-Site Laboratory (pCi/g) K-40 Cs-137 Bi-214 Pb-214 0.268 1.09 0.268 0.219 -0.00811 1.27 0.246 0.0165 0.246 0.252

517 2 194 Systematic 07517-S0002-F194-01 24-Oct-12 23.92 1.299 0. Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site); Cs-137 ≥ 0.113; Bi-214 ≥ 1.485; Pb-214 ≥ 1.485 (pCi/g)



HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

SHACKS 79/80 SURVEY UNIT 02



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591



Site Area: 7980 Survey Unit: 2 Count Time: 1 min Area: 844.72 m² Class: 1

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/4/2012 12:59	6475	5845	630	622-BKGDS1A	7004	
2	4/4/2012 13:00	6256	5845	411	622-BKGDS1A	7004	1 2 3 3 4 4 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5
3	4/4/2012 13:02	6656	5845	811	622-BKGDS1A	7004	
4	4/4/2012 13:03	6184	5845	339	622-BKGDS1A	7004	100 m
5	4/4/2012 13:04	5730	5845	-115	622-BKGDS1A	7004	
6	4/4/2012 13:06	3559	5845	-2286	622-BKGDS1A	7004	
7	4/4/2012 13:07	4525	5845	-1320	622-BKGDS1A	7004	
8	4/4/2012 13:08	4128	5845	-1717	622-BKGDS1A	7004	
9	4/4/2012 13:09	4473	5845	-1372	622-BKGDS1A	7004	
10	4/4/2012 13:11	5532	5845	-313	622-BKGDS1A	7004	
11	4/4/2012 13:13	4710	5845	-1135	622-BKGDS1A	7004	
12	4/4/2012 13:14	3764	5845	-2081	622-BKGDS1A	7004	
13	4/4/2012 13:16	3549	5845	-2296	622-BKGDS1A	7004	
14	4/4/2012 13:17	3521	5845	-2324	622-BKGDS1A	7004	
15	4/4/2012 13:18	6110	5845	265	622-BKGDS1A	7004	
16	4/4/2012 13:20	5467	5845	-378	622-BKGDS1A	7004	12/23 - 250 100
17	4/4/2012 13:21	3284	5845	-2561	622-BKGDS1A	7004	Manager of the mass results
18	4/4/2012 13:22	4884	5845	-961	622-BKGDS1A	7004	
19	4/4/2012 13:23	4780	5845	-1065	622-BKGDS1A	7004	
20	4/4/2012 13:25	5928	5845	83	622-BKGDS1A	7004	
21	4/4/2012 13:26	4987	5845	-858	622-BKGDS1A	7004	
22	4/4/2012 13:27	3724	5845	-2121	622-BKGDS1A	7004	
23	4/11/2012 8:30	3838	5845	-2007	622-BKGDS1A	7004	
24	4/11/2012 8:31	3481	5845	-2364	622-BKGDS1A	7004	
25	4/11/2012 8:32	3978	5845	-1867	622-BKGDS1A	7004	
26	4/11/2012 8:33	5325	5845	-520	622-BKGDS1A	7004	
27	4/18/2012 14:51	6330	5845	485	622-BKGDS1A	7004	
28	4/25/2012 10:08	6210	5845	365	622-BKGDS1A	7004	



Count Time: 1 min Area: 844.72 m² Site Area: 7980 Survey Unit: 2 Class: 1

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Comments Rdg # Date / Time Gross Gamma Net Background 3σ Background Gamma ID* Investigation Gamma CPM Level (cpm) CPM CPM

> Net Gamma cpm Min: -2561

Summary Avg: -938

> Max: 811 St Dev: 1101

Readings $> 3\sigma$ investigation level are highlighted in blue

^{*} Background ID correlates to Instrument reference area background identification number Gamma measurements > 3 σ investigation level are verified by 2360 beta measurements



Gamma Instrument and Reference Area **Background Report**

Area: 844.72 m²

Site Area: 7980 Survey Unit: 2 Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

2350 Identification #: 622

Instrument/Probe Type: 2350-1 / 44-10

Instrument Serial #: 129430

Probe Serial #: 230163

Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Class: 1

Rdg #	Date and Time	Gross Gamma CPM
1		
	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm):

5845

Standard Deviation:

386

Gamma 3σ Investigation

7004

Level (cpm):



Exposure Rate Measurements

Site Area: 7980 Survey Unit: 2 Class: 1 Area: 844.72 m²

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Instrument Model:

Model 19

Reference Area Background

666-BKGDS1

Instrument Serial Number:

91499

Reference Area Background

Parcel D-1

Instrument Calibration Due Date:

1/15/2013

Location:

Reference

Exposure Rate

Identification #:

6

Background (µR/hr):

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	4/4/2012	7	
2	4/4/2012	7	
3	4/4/2012	7	
4	4/4/2012	7	
5	4/4/2012	6	
6	4/4/2012	6	
7	4/4/2012	6	
8	4/4/2012	6	
9	4/4/2012	6	
10	4/4/2012	7	
11	4/4/2012	S	
12	4/4/2012	5	
13	4/4/2012	6	
14	4/4/2012	6	
15	4/4/2012	7	
16	4/4/2012	8	
17	4/4/2012	6	
18	4/4/2012	6	
19	4/4/2012	7	
20	4/4/2012	4	
21	4/4/2012	6	
22	4/4/2012	6	
23	4/11/2012	5	
24	4/11/2012	6	
25	4/11/2012	6	
26	4/11/2012	7	
27	4/18/2012	7	



TETRATECH EC. INC. Exposure Rate Measurements Hunters Point Shipyard San Francisco, CA

Rdg#

Date

Exposure Rate Comments

(μR/hr) 7

28

4/25/2012

Min: 4.00

Exposure Rate Summary (µR/hr)

Avg: 6.25

Max: 8.00

St Dev: 0.84

BFS 02378

Chain-of-Custody Record

TETRA TECH EC. INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

				240								
Project Name Radiological Building Survey	*5	PO Number	5	N/A			G S A B	A .		LABORATORY NAME		Project Information
Project Location HUNTERS POINT	E	Project Number	mber	4044,0007		177	Z Z			ONSITE - Curdis & Tompkins, LTD.	rdis & CTD.	Section
Sampler Name J- Rolfe	d	Airbill Number	mber	N/A	×		4 20 4	∢		LABORATORYD		39
Project Chemist LISA BIENKOWSKI	3KI	Project Ch	Project Chemist Phone	949-756-7592	7592	# T	. H U	-				
SAMPLE_ID	DATE	TIME	DATE TIME Containers LEVEL TYPE	талат	TYPE	F < F	1	1	COMMENTS	TS LOCATION		SAMPLE ID
077980-S0002-F027-01	4/18/2012 124S 1	1245	1		S1			屵				

Relinguashed by Stiggla Bull	C1-81-Hang	Date 4-18-13 Received by: (signature)	-LABORATORY INSTRUCTIONS/COMMENTS	Ş
company ASRS	OhSI amil	Company Of	50-17 A 50-17	CG 970
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	The Contract
Company	Time	Company		
Relinguished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Сотрапу	Time	Сопрапу	PEMPERATURE: SAMPLE.CONDITION; COOLER SEAL!	

BFS 02351

Chain-of-Custody Record

TETRATECH EC, INC.
1230 Columbia St, Sulte 750
San Diego, CA 92101

Project Name Radiological Building Survey	Survey	PO Number	Jet.	N/A			SOE	47		LABORATORY NAME	Project Information
Project Location HUNTERS POINT	L	Project Number	umber	4044-0007	2	ΣΣ.	60	A H		ONSITE - Curtis & Tompkins, LTD.	Section
Sampler Name Rolle	را	Airbill Number	ımber	. V		a oo h	man	∢		LABORATORY ID	Tim
Project Chemist LISA BIENKOWSKI	SKI	Project Cl	Project Chemist Phone	e 949-756-7592	7592	. H O					
SAMPLE_ID	DATE	TIME	Containers LEVEL	TEVEL	TYPE	144	F	1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F001-01	4/4/2012	1235	1		S1	\(\bar{\bar{\bar{\bar{\bar{\bar{\bar{					
077980-S0002-F002-01	4/4/2012	1338	1		S1	2	믜				
077980-S0002-F003-01	4/4/2012	JhQl	-		S1		믜				
077980-S0002-F004-01	4/4/2012	がら	-		S1	2					
077980-S0002-F005-01	4/4/2012	C#01	-		S1	2			0.00 mm var 2000		
077980-S0002-F006-01	4/4/2012	0561	-		S1	[2]					
077980-S0002-F007-01	4/4/2012	1253	-	÷	S1	[2]					
077980-S0002-F008-01	4/4/2012	1256	-	*******	S1	<u>></u>			DOP		
077980-S0002-F009-01	4/4/2012	1259	-		S1	2					
077980-S0002-F010-01	4/4/2012	1305			S1	D					
077980-50002-F011-01	4/4/2012	305	-		S1	[2]	믜		20 1		
077980-S0002-F012-01	4/4/2012	1308	-		S	>					
			8								

Relinguished by Balgangle	Patg-4-12 R	Received by: (stangiure)	EABORATORY INSTRUCTIONS/COMMENTS
company ASRS	Time 1523	Company Of	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION SASSES 1- 2
Сотрапу	Тине	Сотрапу	7) - 5, During 15, S
Relinguished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIFT (FOR LABORATORY)
Сотрапу	Тте	Сотрапу	TEMPERALURE. SAMILLE CONDITION: COOLER SEALS.

Chain-of-Custody Record

TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

BFS 02352

Project Name		DO Marchae				ſ	1	ŀ			
Radiological Building Survey	Survey	I O I	100	A/N		-	ے د	v =		LABORATORY NAME	Project Information
Project Location HUNTERS POINT	H	Project Number	lumber	4044-0007	20		ΣZ	100	2 A. H	ONSITE - Curtis & Tompking, LTD.	Section
Sampler Name . Rolfe	ر ا	Airbill Number	umber	V V/N			∀ છ €	<u> </u>		LABORATORY ID	
Project Chemist LISA BIENKOWSKI	SKI	Project C	Project Chemist Phone	e 949-756-7592	-7592	1	L EI O			i i	
SAMPLE_ID	DATE	TIME	Containers LEVEL	LEVEL	TYPE	F < F	-	╆	COMMENTS :	LOCATION	SAMPLE ID
077980-50002-F013-01	4/4/2012	13.11	-		81		[2]	╂∺			
077980-S0002-F014-01	4/4/2012	1314	-	G	S		[2]	남			
077980-S0002-F015-01	4/4/2012	1317	-		S		<u> </u>	片			
077980-S0002-F016-01	4/4/2012	1390	-		S		2	片			
077980-S0002-F017-01	4/4/2012	1323	-		S1		[<u>S</u>]	片			
077980-S0002-F018-01	4/4/2012	1326	-		S		<u> </u>	님			
077980-50002-F019-01	4/4/2012	1339	-		S1		<u> </u>	H			
077980-S0002-F020-01	4/4/2012	1332	-		S1		[3]	片			
077980-S0002-F021-01	4/4/2012	1335			81	ري	[<u>N</u>	님		10	
077980-50002-F022-01	4/4/2012	1338	-		S1		<u> </u>	붜	į		

Relinquished by Wanging Ale	61-4-12	Received by (signature)	LABORATIORY INSTRUCTIONS/COMMENTS SAMPLING COMMENTS
company RSPS	Time Sa 3	Сонфану	
Relinguished by: (signature)	Date	Received by: (signature)	COMPOSITY, DESCRIPTION
Сотрапу	Time	Сотрапу	
Relinquished by: (signature)	Date	Received by: (signature)	Ιē
Сотрапу	Time	Сотрану	TRIMERATURE: SAMILE CONDITION: COOLER SEAL;
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Chain-of-Custody Record

TE TETRATECH EC, INC. 1230 Columbia St, Suite 750 San Diego, CA 92101

BFS 02361

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Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Sulte 750 San Diego, CA 92101

BFS 02387

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P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\SHACK 79 AND 80\SHACK 79-80.DWG PLOT/UPDATE: APR 24 2012 08:32:18

HUNTERS POINT SHIPYARD SAN FRANCISCO, CA P.O. BOX 884836 SAN FRANCISCO, CA 94188

SHACKS 79/80 SURVEY UNIT 02



TETRA TECH EC, IN C 1230 COLUMBIA STREET, SUITE 750 SAN DIEGO, CA 92101 TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From:

Chiu. George

Sent:

Tuesday, June 05, 2012 1:40 PM

To:

Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman

(laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens

Cc:

(patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil) Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl;

Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis;

Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie;

Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan

Subject:

HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Attachments:

077980-S0002 003 to 006, 008 to 022, and 028 Off-Site Gamma.pdf; 077980-S0002 003 to

006, 008 to 022, and 028 Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec and strontium results for the systematic samples from Former Shack 79 and 80 Sites Survey Unit 02.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services

100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Friday, May 04, 2012 1:15 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navv.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the replacement systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

According to the TSP for the Former Shack 79 and 80 Sites, 100% of the final systematic will be analyzed by gamma spectroscopy and for total strontium/strontium-90 at a DoD ELAP approved laboratory.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503

www.radsvcs.com

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S

Think Green - Not every email needs to be printed.

From: Chiu, George

Sent: Wednesday, May 02, 2012 12:00 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample (07) with cesium-137 activity above the release criterion from Former Shack 79 and 80 Sites Survey Unit 02.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Monday, April 23, 2012 1:18 PM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Sample 27 was recounted for a longer duration at the direction of the laboratory manager.

We will proceed with taking a replacement systematic sample for sample 07.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



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From: Chiu, George

Sent: Tuesday, April 17, 2012 9:49 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards

(zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brlan; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karlsa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan **Subject:** HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

We will proceed with remediation followed by post-remediation sampling.

George Chiu | Health Physicist Office: 415.216.2745 | Cell: 714.270.4009 george.chiu@tetratech.com

Radiological Survey & Remedial Services 100 Washington Street Suite 200 | Reno, NV 89503 www.radsvcs.com

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From: Chiu, George

Sent: Tuesday, April 10, 2012 7:59 AM

To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)

Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Samples 01, 03, 06, 07, 09, and 22 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 07 (0.1700 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
heorge.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 4, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Area #32. Details of the work activities performed are provided in the sections below.

North Pier

• Approximately 114 cubic yards of asphalt removed from Survey Unit 6 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

• A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 4, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
 - A total of 53 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Unit 0673.
 - Issued drawing to identify biased sample collection locations for ES Unit 0671.
 - Two biased soil samples were collected from ES Unit 0626 and submitted to the on-site laboratory for analysis.
- The ES Unit 0656 on-site analytical data was submitted to the RASO for review with a request for concurrence to stage the material pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
 - A total of 70 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 70 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 58
 - Air samples received: 10
 - Samples analyzed by gamma spectroscopy: 79
 - Gamma spectroscopy samples recounted: 14
 - Protean air samples counted: 10
- A total of 120 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 4, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

• The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 5; no activity above the release criteria was identified.

Shacks 79 and 80

- Towed array gamma scan survey activities were performed by the HPNS Team over Survey Unit 3.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,655 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 46 cubic yards of soil was remediated from Survey Units 16 and 18 by the HPNS Team and placed in LLRW bins AWIU000148, AWIU000162, AWIU000286, and AWIU000296 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 3 A total of 10 post-remediation gamma static measurements were logged with a maximum measurement of 6,878 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis.

- Survey Unit 18 A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,621 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 3 and 18.
- The HPNS Team provided the RASO with on-site analytical and survey results for the systematic samples collected from Class 1 Survey Unit 15. Characterization and remediation will be performed due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 54 (07500SA-S0015-F054-01) with ¹³⁷Cs at 0.1554 pCi/g
 - Sample Point 58 (07500SA-S0015-F058-01) with ¹³⁷Cs at 0.2167 pCi/g
 - Sample Point 64 (07500SA-S0015-F064-01) with ¹³⁷Cs at 0.1307 pCi/g
 - Sample Point 68 (07500SA-S0015-F068-01) with ¹³⁷Cs at 0.5159 pCi/g
 - Sample Point 80 (07500SA-S0015-F080-01) with ¹³⁷Cs at 0.2028 pCi/g
 - Sample Point 82 (07500SA-S0015-F082-01) with ¹³⁷Cs at 0.1932 pCi/g
 - Sample Point 83 (07500SA-S0015-F083-01) with ¹³⁷Cs at 0.1937 pCi/g
 - Sample Point 85 (07500SA-S0015-F085-01) with 137 Cs at 0.234 pCi/g

Parcel E Storm Drain and Sanitary Sewer Removal Activities

• The HPNS Team excavated approximately 636 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:

_	07-E36-38-3F	5 linear feet completed
-	07-E36-38-3G	5 linear feet completed
-	07-E36-38-3H	90 linear feet completed
-	07-E36-38-3I	24 linear feet completed
-	07-E36-38-3J	26 linear feet completed
-	07-E36-38-3P	5 linear feet completed
_	07-E36-38-3Q	25 linear feet completed
-	07-E36-38-3R	60 linear feet completed

- A total of 240 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1275 and MH1276 and pipes excavated from trench segment 07-E36-38-31 were placed on plastic pending further activities.
- A total of two sediment samples were collected from excavated Manholes MH1275 (07-PEMH1275-009-01) and MH1276 (07-PEMH1276-010-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 11, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Buildings 203, 211, 231, and 253, and Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated pipe sections (Survey No. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- A total of 18 systematic samples were collected from Trench Unit No. 247 (associated with Building 203) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Trench Unit No. 242. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 238 (associated with Buildings 211, 231, and 253).
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 11, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 62 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
 - Collected soil samples and submitted to the on-site laboratory for analysis as follows:
 - 18 systematic soil samples from ES Unit 0626
 - 9 biased and 18 systematic soil samples from ES Unit 0652
 - 16 biased and 18 systematic soil samples from ES Unit 0655
 - 4 biased and 18 systematic soil samples from ES Unit 0674
 - 7 biased and 18 systematic soil samples from ES Unit 0675
 - Remediated approximately 31 cubic yards of soil from ES Unit 0626 and placed the material in LLRW bins pending off-site disposal by the DON radiological waste contractor.
 - ES Unit 0656 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the following:
 - On-site analytical data for ES Units 0673 and 0677 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.
 - On-site analytical data for ES Unit 0657 and a request for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
 - A total of 48 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 172
 - Air samples received: 9
 - Samples analyzed by gamma spectroscopy: 76
 - Gamma spectroscopy samples recounted: 5
 - Protean air samples counted: 10
- A total of 194 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 11, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 2 A total of four characterization gamma static measurements were logged with a maximum measurement of 5,325 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
 - Survey Unit 3 A total of two biased and twenty systematic gamma static measurements were logged with a maximum measurement of 5,745 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 2 and 3.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 3.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 3. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,895 cpm.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Class 1 Survey Unit 16. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 744 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:
 - 07-E36-00-6R

-	07-E36-00-6S	30 linear feet completed
_	07-E36-00-6U	66 linear feet completed
-	07-E36-00-6V	10 linear feet completed
-	07-E36-00-6W	21 linear feet completed
-	07-E36-00-6X	25 linear feet completed

- A total of 252 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1282 was placed on plastic pending further activities.
- Backfill activities were completed for Trench Unit No. 225 by the HPNS Team.
- Backfill activities were continued for Trench Unit No. 228 by the HPNS Team.
- The HPNS Team provided the RASO with the on-site analytical results for the systematic samples collected from Trench Unit No. 245; no activity above the release criteria was identified.
- The HPNS Team conducted storm water pollution prevention activities in Parcel E.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 18, 2012	DAD TIME COMPANY
Report Date. April 18, 2012	RAD EMAC – CTO 002
	Id ID LIVING - CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and 34. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 216 cubic yards of soil from Work Areas #32 and #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
 - 02-C32-00-1G 35 linear feet completed - 02-C34-28-4T 20 linear feet completed - 02-C34-28-4Y 38 linear feet completed
 - 02-C34-28-5Y 20 linear feet completed
- A total of 113 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe sections excavated from trench segments 02-C32-00-1G and 02-C34-28-4Y were placed on plastic pending further activities.
- A sediment sample was collected from pipe excavated from trench segment 02-C32-00-1G (02-PCPI-0011-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Site restoration activities were conducted over previously backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 18, 2012	RMAC – CTO 004
	<u> </u>

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY3 processing activities:
 - Towed array survey activities were performed for ES Units 0685 and 0688.
 - ES Units 0686 and 0687 was prepared for upcoming towed array activities.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 18 truckloads of material were received for processing.
 - ES Unit 0645 was prepared for upcoming towed array activities.
 - Issued drawings to identify biased, characterization, and systematic sample collection locations for ES Units 0626, 0658, 0676, and 0680.
 - ES Units 0652 and 0694 were staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- Following data reviews, the RASO concurred with staging ES Units 0652, 0659, 0674, and 0675 pending receipt of the off-site analytical data prior to transferring the materials to the DON non-LLRW contractor for disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
 - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
 - A total of 45 truckloads of material exited HPNS through the portal monitor with no alarms.
- One incoming materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 64
 - Swipe samples received for Protean counts: 13
 - Air samples received: 11
 - Samples analyzed by gamma spectroscopy: 98
 - Gamma spectroscopy samples recounted: 2
 - Protean swipe samples counted: 13
 - Protean air samples counted: 11
- A total of 88 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 18, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

• The HPNS Team provided the RASO with revised on-site analytical results for the post-remediation samples collected from Class 1 Survey Unit 2. Samples 119 and 120 were recounted for a longer duration to meet the ⁶⁰Co MDA requirement. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A post-remediation gamma static measurement was logged at 6,330 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 15 cubic yards of soil was remediated from Class 1 Survey Units 17 and 18 by the HPNS Team and placed in LLRW bins AWIU000263 and GFLU002055 for off-site disposal.
- Towed array gamma scan surveys were performed over Survey Unit 13.
- The HPNS Team performed Class 1 survey activities as follows:
 - Survey Unit 13 A total of 356 gamma scan readings were logged with a maximum reading of 6,994 cpm.

- Survey Unit 15 A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 6,968 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 17 A total of two post-remediation gamma static measurements were logged with a maximum measurement of 6,692 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 A total of 36 systematic gamma static measurements were logged with a maximum measurement of 5,977 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data generated for Survey Units 13, 15, 17, and 19.
- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 3. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ¹³⁷Cs samples collected from Class 1 Survey Units 16 and 18; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 15 and 18 and for biased and systematic sample collection in Class 1 Survey Unit 14.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

A variety of housekeeping activities were performed throughout the Building 500 Series
 Area by the HPNS Team.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY STATUS REPORT Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 25, 2012 RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 7; no further contamination was identified.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 2; no activity above the release criteria was identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Pipes and debris from trench segments 02-C33-00-3P, 02-C33-29-1D, -1W, -1X, -8E, 02-C34-28-3T, -4Z, -8B, and -8U were placed by the HPNS Team in LLRW bin AWIU000201 for off-site disposal.
- The HPNS Team provided the RASO with analytical results for the sediment sample collected from excavated Manhole MH1333 (02-PCMH1333-062-01). Because ¹³⁷Cs contamination was identified at 0.3499 pCi/g, this manhole will be disposed of as LLRW.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

Internal Draft Radiological Removal Action Completion Report



DAILY PROGRESS REPORT Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 25, 2012 RMAC – CTO 004	
	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team issued a drawing to identify biased and systematic sample collection locations for ES Unit 0689 in RSY3.
- The HPNS Team performed the following RSY4 processing activities:
 - A total of 41 truckloads of material were received for processing.
 - Towed array survey activities were performed for ES Unit 0691.
 - Issued drawings to identify biased and systematic sample collection locations for ES Units 0681, 0684 and 0694.
- Following data reviews, the RASO concurred with transferring ES Units 0642 and 0644 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

• One incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
 - Soil samples received for gamma spectroscopy analysis: 65
 - Swipe samples received for Protean counts: 8
 - Air samples received: 12
 - Samples analyzed by gamma spectroscopy: 86
 - Gamma spectroscopy samples recounted: 7
 - Protean swipe samples counted: 48
 - Protean air samples counted: 12
- A total of 322 samples currently are awaiting gamma spectroscopy analysis in the onsite laboratory.



DAILY STATUS REPORT Parcel E and Building 500 Series Removal Action

Report Date: April 25, 2012 RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided below.

Building 520 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 5. Characterization and remediation will be continued due to the presence of ⁹⁰Sr contamination as follows:
 - Sample Point 56 (07520-S0005-F056-01) with ⁹⁰Sr at 1.19 pCi/g
 - Sample Point 57 (07520-S0005-F057-01) with ⁹⁰Sr at 0.894 pCi/g
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 5.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A replacement systematic gamma static measurement was logged at 6,209 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with on-site analytical and survey results for the replacement systematic samples collected from Class 1 Survey Unit 1. Because no activity above the release criteria was identified, the 18 systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 1; no further contamination was identified.

500 Series Area

- The HPNS Team removed fencing surrounding the tennis courts in preparation for towed array surveys in Class 2 Survey Unit 22.
- The HPNS Team performed Class 1 survey activities as follows:

- Survey Unit 13 A total of two characterization gamma static measurements were logged with a maximum measurement of 6,848 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 16 A total of three characterization gamma static measurements were logged with a maximum measurement of 6,475 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 18 A characterization gamma static measurement was logged with a measurement of 5,715 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 A characterization gamma static measurement was logged with a measurement of 4,575 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis
- Survey Unit 21 A total of two characterization gamma static measurements were logged with a maximum measurement of 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 13, 16, 18, 19, and 21.
- The HPNS Team provided the RASO with on-site analytical results for the systematic samples collected from Class I Survey Unit 19. Characterization and remediation will be continued due to the presence of ¹³⁷Cs contamination as follows:
 - Sample Point 54 (07500SA-S0019-F054-01) with ¹³⁷Cs at 0.1153 pCi/g
 - Sample Point 68 (07500SA-S0019-F068-01) with 137 Cs at 0.1556 pCi/g
 - Sample Point 74 (07500SA-S0019-F074-01) with ¹³⁷Cs at 0.1468 pCi/g
 - Sample Point 75 (07500SA-S0019-F074-01) with ¹³⁷Cs at 0.1645 pCi/g
- The HPNS Team provided the RASO with on-site analytical results for the characterization and post-remediation samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, a replacement systematic soil sample will be collected for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 16 and 17; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Units 5, 6, 13, 15, 19, and 20.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

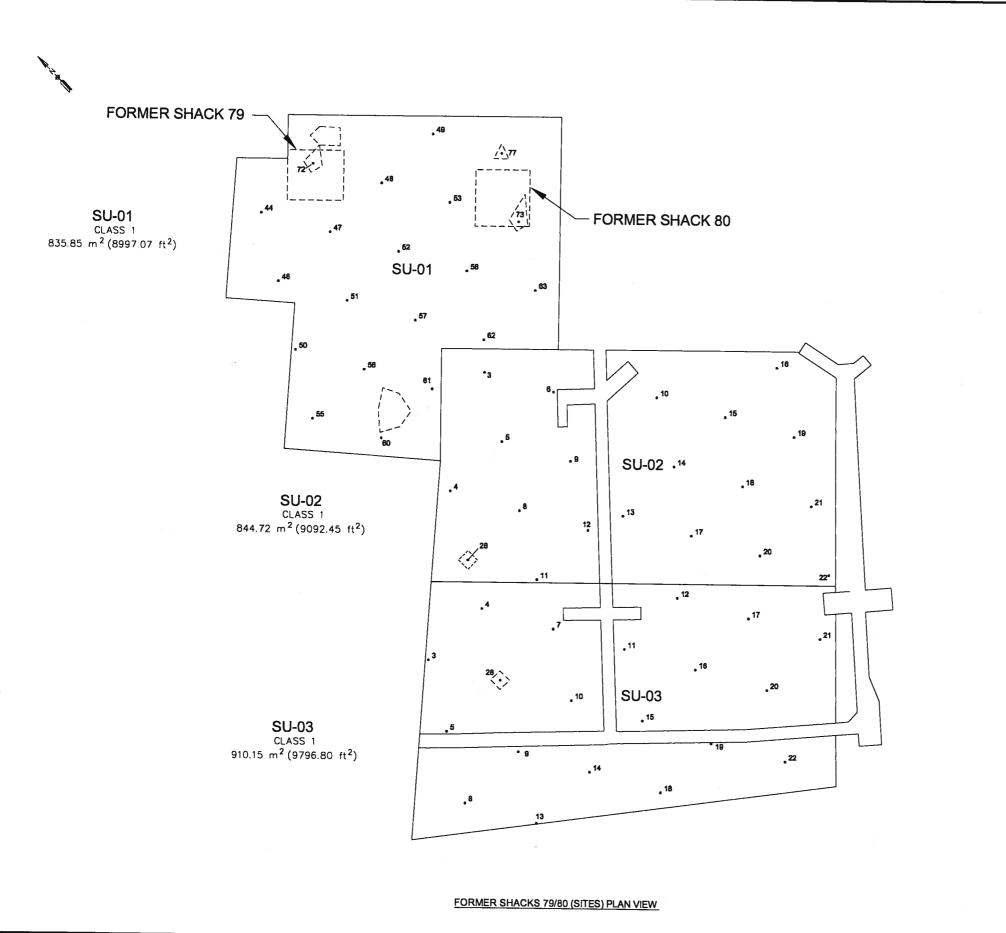
- The HPNS Team excavated approximately 492 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
 - 07-509-38-3T
- 9 linear feet completed
- 07-509-38-3U
- 8 linear feet completed

	07-509-38-8A	11 linear feet completed
-	07-E36-38-3J	11 linear feet completed
-	07-E36-38-3S	110 linear feet completed
-	07-E36-38-3T	29 linear feet completed
-	07-E36-38-3U	27 linear feet completed
-	07-E36-39-1D	103 linear feet completed
-	07-E36-39-1E	7 linear feet completed
-	07-E36-39-1F	3 linear feet completed
-	07-E36-39-8B	90 linear feet completed
-	07-E36-39-8C	4 linear feet completed
-	07-E36-39-8D	4 linear feet completed
-	07-E36-39-8E	10 linear feet completed

- A total of 307 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 119 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH1301, MH1302, MH1303, and MH1326 along with pipes excavated from trench segments 07-509-38-3T, -8A, 07-E36-38-3T, 07-E36-39-8B, and -8D were placed on plastic pending further activities.
- Sediment samples were collected from excavated Manholes MH1302 (07-PEMH1302-013-01) and MH1303 (07-PEMH1303-014-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

• Internal Draft Radiological Removal Action Completion Report



FORMER SHACKS 79/80 (SITES)

KEY PLAN

LEGEND

FORMER SHACKS 79/80

SURVEY UNIT

*3 SYSTEMATIC SAMPLES

15 0 15 3 (feet)

BASE REALIGNMENT AND CLOSURE PROGRAM MANAGEMENT OFFICE WEST SAN DIEGO, CALIFORNIA

FINAL STATUS SURVEY

FORMER SHACKS 79/80 (SITES)

FIGURE 4-1

CLASS 1 SURVEY UNITS

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA

REVISION: AUTHOR: A.CRABTREE PROJECT NO: FILE: SEE BELOW

TETRA 1

TETRA TECH EC, INC.

Area	Survey	Sample	Sample	Sample	Date	COC Radiological
Alea	Unit	Point	Туре	ID	Collected	Technician
7980	1	1	Biased	077980-S0001-F001-01	15-Dec-11	Jeff Rolfe
7980	1	2	Biased	077980-S0001-F002-01	15-Dec-11	Jeff Rolfe
7980	1	3	Biased	077980-S0001-F003-01	15-Dec-11	Jeff Rolfe
7980	1	4	Systematic	077980-S0001-F004-01	15-Dec-11	Jeff Rolfe
7980	1	5	Systematic	077980-S0001-F005-01	15-Dec-11	Jeff Rolfe
7980	1	6	Systematic	077980-S0001-F006-01	15-Dec-11	Jeff Rolfe
7980	1	7	Systematic	077980-S0001-F007-01	15-Dec-11	Jeff Rolfe
7980	1	8	Systematic	077980-S0001-F008-01	15-Dec-11	Jeff Rolfe
7980	1	9	Systematic	077980-S0001-F009-01	15-Dec-11	Jeff Rolfe
7980	1	10	Systematic	077980-S0001-F010-01	15-Dec-11	Jeff Rolfe
7980	1	11	Systematic	077980-S0001-F011-01	15-Dec-11	Jeff Rolfe
7980	1	12	Systematic	077980-S0001-F012-01	15-Dec-11	Jeff Rolfe
7980	1	13	Systematic	077980-S0001-F013-01	15-Dec-11	Jeff Rolfe
7980	1	14	Systematic	077980-S0001-F014-01	15-Dec-11	Jeff Rolfe
7980	1	15	Systematic	077980-S0001-F015-01	15-Dec-11	Jeff Rolfe
7980	1	16	Systematic	077980-S0001-F016-01	15-Dec-11	Jeff Rolfe
7980	1	17	Systematic	077980-S0001-F017-01	15-Dec-11	Jeff Rolfe
7980	1	18	Systematic	077980-S0001-F018-01	15-Dec-11	Jeff Rolfe
7980	1	19	Systematic	077980-S0001-F019-01	15-Dec-11	Jeff Rolfe
7980	1	20	Systematic	077980-S0001-F020-01	15-Dec-11	Jeff Rolfe
7980	1	21	Systematic	077980-S0001-F021-01	15-Dec-11	Jeff Rolfe
7980	1	22	Systematic	077980-S0001-F022-01	15-Dec-11	Jeff Rolfe
7980	1	23	Systematic	077980-S0001-F023-01	15-Dec-11	Jeff Rolfe
7980	1	24	Characterization	077980-S0001-F024-01	22-Feb-12	Rick Zahensky
7980	1	25	Characterization	077980-S0001-F025-01	22-Feb-12	Rick Zahensky
7980	1	26	Characterization	077980-S0001-F026-01	22-Feb-12	Rick Zahensky
7980	1	27	Characterization	077980-S0001-F027-01	22-Feb-12	Rick Zahensky
7980	1	28	Characterization	077980-S0001-F028-01	22-Feb-12	Rick Zahensky
7980	1	29	Characterization	077980-S0001-F029-01	22-Feb-12	Rick Zahensky
7980	1	30	Characterization	077980-S0001-F030-01	22-Feb-12	Rick Zahensky
7980	. 1	31	Characterization	077980-S0001-F031-01	22-Feb-12	Rick Zahensky
7980	1	32	Characterization	077980-S0001-F032-01	01-Mar-12	Rick Zahensky
7980	1	33	Characterization	077980-S0001-F033-01	01-Mar-12	Rick Zahensky
7980	1	34	Characterization	077980-S0001-F034-01	01-Mar-12	Rick Zahensky
7980	1	35	Characterization	077980-S0001-F035-01	01-Mar-12	Rick Zahensky
7980	1	36	Characterization	077980-S0001-F036-01	01-Mar-12	Rick Zahensky
7980	1	37	Characterization	077980-S0001-F037-01	01-Mar-12	Rick Zahensky
7980	1	38	Characterization	077980-S0001-F038-01	01-Mar-12	Rick Zahensky
7980	1	39	Post-Remediation	077980-S0001-F039-01	19-Mar-12	Jeff Rolfe
7980	1	40	Post-Remediation	077980-S0001-F040-01	19-Mar-12	Jeff Rolfe
7980	1	41	Post-Remediation	077980-S0001-F041-01	19-Mar-12	Jeff Rolfe
7980	1	42	Post-Remediation	077980-S0001-F042-01	19-Mar-12	Jeff Rolfe
7980	1	43	Post-Remediation	077980-S0001-F043-01	19-Mar-12	Jeff Rolfe
7980	1	44	Systematic	077980-S0001-F044-01	27-Mar-12	Jeff Rolfe
7980	1	45	Systematic	077980-S0001-F045-01	27-Mar-12	Jeff Rolfe
7980	1	46	Systematic	077980-S0001-F046-01	27-Mar-12	Jeff Rolfe
7980	1	47	Systematic	077980-S0001-F047-01	27-Mar-12	Jeff Rolfe
7980	1	48	Systematic	077980-S0001-F048-01	27-Mar-12	Jeff Rolfe
7980	1	49	Systematic	077980-S0001-F049-01	27-Mar-12	Jeff Rolfe
7980	1	50	Systematic	077980-S0001-F050-01	27-Mar-12	Jeff Rolfe
7980	1	51	Systematic	077980-S0001-F051-01	27-Mar-12	Jeff Rolfe
7980	1	52	Systematic	077980-S0001-F052-01	27-Mar-12	Jeff Rolfe
7980	1	53	Systematic	077980-S0001-F053-01	27-Mar-12	Jeff Rolfe
, 550		UU	Gyalematic	011300-30001-003-01	21-Widi-12	Jeli Kolfe

	<u>On-</u>	Site Laboratory	(pCi/g)		
K-40	Ra-226	Cs-137	Bi-214	Pb-214	
25.2	0.9137	0	0.5347	0.6151	
24.41	0.279	0.02947	0.6561	0.6959	
29.42	0.6357	0.0005157	0.6442	0.7351	
3.995	0.178	-0.007648	0.2281	0.212	
13.73	0.8166	0.04719	0.5112	0.514	
4.331	0.5291	0.009105	0.3656	0.3297	
12.45	0.4843	0.02396	0.2668	0.6064	
9.152	0.7749	0.0242	0.3992	0.5419	
11.53	0.751	0.009291	0.4401	0.371	
6.653	0.3414	0.01244	0.4375	0.4691	
10.72	0.4464	0.02122	0.3691	0.5004	
7.606	0.6311	0.03228	0.5624	0.5477	
3.15	0.4215	0	0.2474	0.3316	
10.12	0.4843	0	0.2827	0.355	
11.79	0.9344	0.01548	0.353	0.5071	
11.67	0.2692	0	0.2766	0.3067	
12.7	0.7933	0.007186	0.3407	0.4346	
5.5	0.5534	0.005923	0.328	0.2337	
14.87	0.5224	0.08356	0.3634	0.5333	
13.53	0.3428	0.0226	0.4357	0.3494	
18.9	1.173	0.01484	0.5403	0.5734	
10.6	0	0.03294	0.3811	0.4016	
9.804	0.4546	0.02828	0.3792	0.4024	
12	0.594	0.07655	0.4369	0.6784	
11.37	0.3717	0.06263	0.2895	0.5293	
12.41	0.2002	0.1966	0.4688	0.5256	
12.45	0.8052	0.06098	0.565	0.6447	
17.44	0.9192	0.2127	0.5008	0.5147	
14.19	0.6014	-0.0068	0.6479	0.771	
20.13	0.9259	0.1712	0.5637	0.6508	
19.44	0.9207	0.2058	0.6565	0.6507	
19.22	1.177	-0.005728	0.8194	0.8552	
19.11	1.045	-0.008283	0.8789	0.9538	
18.54	0.7263	-0.009133	0.6511	0.7469	
18.77	0.9042	0.00485	0.6933	0.8001	
19.42	0.973	-0.005097	0.8762	0.8229	
20.07	1.297	0	0.8428	0.9045	
18.69	1.115	0.002846	0.8979	0.9326	
9.357	0.4125	0	0.2115	0.3684	
10.03	0.5296	-0.006999	0.2807	0.3167	
9.906	0.6091	0.0004201	0.3704	0.3246	
8.002	0.9139	-0.003948	0.3481	0.3471	
9.565	1.055	-0.001767	0.3963	0.3762	
15.44	1.198	0.05202	0.7115	0.8557	
14.87	1.11	0.2188	0.4101	0.481	
16.17	0.9619	0.02137	0.6985	0.837	
14.42	1.208	-0.001148	0.4215	0.643	
12.16	0.6543	0.01664	0.5025	0.4611	
13.64	0.9049	0.02921	0.5865	0.6316	
5.624	0.5366	-0.008329	0.1328	0.3165	
14.53	1.283	0.01952	0.5703	0.5986	
12.78	0.9157	0.02375	0.4409	0.4984	
6.957	0.4753	0.0004446	0.2417	-0.00006399	

K-40 Ra-226		Ra-226 Cs-137 Bi-214			
4.9	0.387	-0.00721	0.387	0.364	
14.2	0.739	0.131	0.739	0.769	
3.62	0.389	-0.014	0.389	0.409	
11.8	0.664	-0.03	0.664	0.631	
5.96	0.891	0.0297	0.891	0.783	
10.2	0.436	0	0.436	0.731	
6.45	0.606	0.0151	0.606	0.65	
7.49	0.597	0.00442	0.597	0.496	
8.26	0.717	0.0397	0.717	0.556	
4.3	0.229	0.0111	0.229	0.247	
9.18	0.453	0.0118	0.453	0.472	
13	0.76	0.00284	0.76	0.652	
9.6	0.625	0.0324	0.625	0.59	
11.9	0.56	0	0.56	0.519	
5.95	0.458	0.00712	0.458	0.421	
15.7	0.618	0.125	0.618	0.692	
11.4	0.724	0.0485	0.724	0.759	
19.7	0.611	0.00842	0.611	0.843	
10.6	0.554	0.0285	0.554	0.539	
ี สวร เ					
6.59	0.455	0.0367	0.455	0.45	
8.59	0.400	0.0367	0.455	0.45	
13	0.616	0.0518	0.616	0.674	
13 13.8 12.8	0.616 0.77 0.645	0.0518 0.0136 0.0275	0.616 0.77 0.645	0.674 0.888 0.715	
13 13.8 12.8 7.57	0.616 0.77 0.645 0.644	0.0518 0.0136 0.0275 0.0399	0.616 0.77 0.645 0.644	0.674 0.888 0.715 0.578	
13 13.8 12.8	0.616 0.77 0.645 0.644 0.676	0.0518 0.0136 0.0275 0.0399 0.0244	0.616 0.77 0.645 0.644 0.676	0.674 0.888 0.715 0.578 0.744	
13 13.8 12.8 7.57	0.616 0.77 0.645 0.644	0.0518 0.0136 0.0275 0.0399	0.616 0.77 0.645 0.644	0.674 0.888 0.715 0.578	
13 13.8 12.8 7.57 10.6 4.06	0.616 0.77 0.645 0.644 0.676 0.543	0.0518 0.0136 0.0275 0.0399 0.0244 -0.00252	0.616 0.77 0.645 0.644 0.676 0.543	0.674 0.888 0.715 0.578 0.744 0.376	

Area	Survey	Sample		Sample	Date	COC Radiological
	Unit	Point	Туре	ID	Collected	Technician
7980	1	54	Systematic	077980-S0001-F054-01	27-Mar-12	Jeff Rolfe
7980	1	55	Systematic	077980-S0001-F055-01	27-Mar-12	Jeff Rolfe
7980	1	56	Systematic	077980-S0001-F056-01	27-Mar-12	Jeff Rolfe
7980	1	57	Systematic	077980-S0001-F057-01	27-Mar-12	Jeff Rolfe
7980	1	58	Systematic	077980-S0001-F058-01	27-Mar-12	Jeff Rolfe
7980	1	59	Systematic	077980-S0001-F059-01	27-Mar-12	Jeff Rolfe
7980	1	60	Systematic	077980-S0001-F060-01	27-Mar-12	Jeff Rolfe
7980	1	61	Systematic	077980-S0001-F061-01	27-Mar-12	Jeff Rolfe
7980	1	62	Systematic	077980-S0001-F062-01	27-Mar-12	Jeff Rolfe
7980	1	63	Systematic	077980-S0001-F063-01	27-Mar-12	Jeff Rolfe
7980	1	64	Characterization	077980-S0001-F064-01	03-Apr-12	Jeff Rolfe
7980	1	65	Characterization	077980-S0001-F065-01	03-Apr-12	Jeff Rolfe
7980	_1	66	Characterization	077980-S0001-F066-01	03-Apr-12	Jeff Rolfe
7980	1	67	Characterization	077980-S0001-F067-01	03-Apr-12	Jeff Rolfe
7980	_1	68	Characterization	077980-S0001-F068-01	03-Apr-12	Jeff Rolfe
7980	1	69	Characterization	077980-S0001-F069-01	03-Apr-12	Jeff Rolfe
7980	1	70	Post-Remediation	077980-S0001-F070-01	06-Apr-12	Anthony Smith
7980	1	71	Post-Remediation	077980-S0001-F071-01	06-Apr-12	Anthony Smith
7980	1	72	Systematic	077980-S0001-F072-01	20-Apr-12	Jeff Rolfe
7980	1	73	Systematic	077980-S0001-F073-01	20-Apr-12	Jeff Rolfe
7980	1	74	Characterization	077980-S0001-F074-01	02-Jul-12	Rick Zahensky
7980	1	75	Characterization	077980-S0001-F075-01	02-Jul-12	Rick Zahensky
7980	1	76	Characterization	077980-S0001-F076-01	02-Jul-12	Rick Zahensky
7980	1 -	77	Systematic	077980-S0001-F077-01	02-Jul-12	Rick Zahensky
7980	2	1	Biased	077980-S0002-F001-01	04-Apr-12	Jeff Rolfe
7980	2	2	Biased	077980-S0002-F002-01	04-Apr-12	Jeff Rolfe
7980	2	3	Systematic	077980-S0002-F003-01	04-Apr-12	Jeff Rolfe
7980	2	4	Systematic	077980-S0002-F004-01	04-Apr-12	Jeff Rolfe
7980	2	5	Systematic	077980-S0002-F005-01	04-Apr-12	Jeff Rolfe
7980	2	6	Systematic	077980-S0002-F006-01	04-Apr-12	Jeff Rolfe
7980	2	7	Systematic	077980-S0002-F007-01	04-Apr-12	Jeff Rolfe
7980	2	8	Systematic	077980-S0002-F008-01	04-Apr-12	Jeff Rolfe
7980	2	9	Systematic	077980-S0002-F009-01	04-Apr-12	Jeff Rolfe
7980	2	10	Systematic	077980-S0002-F010-01	04-Apr-12	Jeff Rolfe
7980	2	11	Systematic	077980-S0002-F011-01	04-Apr-12	Jeff Rolfe
7980	2	12	Systematic	077980-S0002-F012-01	04-Apr-12	Jeff Rolfe
7980	2	13	Systematic	077980-S0002-F013-01	04-Apr-12	Jeff Rolfe
7980	2	14	Systematic	077980-S0002-F014-01	04-Apr-12	Jeff Rolfe
7980	2	15	Systematic	077980-S0002-F015-01	04-Apr-12	Jeff Rolfe
7980	2	16	Systematic	077980-S0002-F016-01	04-Apr-12	Jeff Rolfe
7980	2	_17	Systematic	077980-S0002-F017-01	04-Apr-12	Jeff Rolfe
7980	2	18	Systematic	077980-S0002-F018-01	04-Apr-12	Jeff Rolfe
7980	2	19	Systematic	077980-S0002-F019-01	04-Apr-12	Jeff Rolfe
7980	2	20	Systematic	077980-S0002-F020-01	04-Apr-12	Jeff Rolfe
7980	2	21	Systematic	077980-S0002-F021-01	04-Apr-12	Jeff Rolfe
7980	2	22	Systematic	077980-S0002-F022-01	04-Apr-12	Jeff Rolfe
7980	2	23	Characterization	077980-S0002-F023-01	11-Apr-12	Jeff Rolfe
7980	2	24	Characterization	077980-S0002-F024-01	11-Apr-12	Jeff Rolfe
7980	2	25	Characterization	077980-S0002-F025-01	11-Apr-12	Jeff Rolfe
7980	2	26	Characterization	077980-S0002-F026-01	11-Apr-12	Jeff Rolfe
7980	2	27	Post-Remediation	077980-S0002-F027-01	18-Apr-12	Jeff Rolfe
7980	2	28	Systematic	077980-S0002-F028-01	25-Apr-12	Rick Zahensky
7980	3	1	Biased	077980-S0003-F001-01	11-Apr-12	Anthony Smith

	On-	Site Laboratory	(bcild)	923	
K-40	Ra-226	Cs-137	Bi-214	Pb-214	
8.22	0.5953	0.01421	0.2937	0.3236	
19.21	19.21 1.048		0.6646	0.6805	
12.4	0.5392	0.02224	0.5477	0.6347	
10.55	0.5062	0.03709	0.483	0.4386	
25.26	1.138	0.01915	0.6524	0.6986	
13.45	0.6035	0.1169	0.6062	0.616	
20.23	0.7575	0.07492	0.4957	0.6598	
13.08	0.7307	0.02712	0.431	0.5529	
22.52	0.9163	0.0117	0.6034	0.7355	
13.99	0.5582	0.01908	0.2921	0.4789	
8.604	-0.05862	0.01311	0.3911	0.3022	
11.48	0.5624	0	0.4904	0.467	
11.19	0.6287	0.01801	0.3388	0.4469	
14.1	1.16	0.00106	0.6877	0.6105	
17.91	1.218	0.01234	0.4406	0.4634	
15.26	0.9631	0.001534	0.6553	0.7328	
10.72	0.486	0.008305	0.1595	0.2334	
9.331	0.782	-0.01113	0.2341	0.3407	
8.851	0.7155	-0.006107	0.3015	0.3346	
6.258	0.3147	-0.0006957	0.3098	0.4072	
9.909	0.5944	0.003967	0.3627	0.431	
0.1279	-0.003034	0.0126			
0.1279 0.103	-0.003034 -0.1327	0.0126	0.03288	-0.03844	
0.1279 0.103 0.3878	-0.003034 -0.1327 -0.0372	0	0.03288 0.02184	-0.03844 0	
0.103	-0.1327		0.03288 0.02184 -0.004521	-0.03844 0 -0.01145	
0.103 0.3878	-0.1327 -0.0372	0 0.00251	0.03288 0.02184	-0.03844 0 -0.01145 0.5689	
0.103 0.3878 22.55	-0.1327 -0.0372 0.6674	0 0.00251 0.04442	0.03288 0.02184 -0.004521 0.5596	-0.03844 0 -0.01145	
0.103 0.3878 22.55 0.06615	-0.1327 -0.0372 0.6674 0.09367	0 0.00251 0.04442 0.0007372	0.03288 0.02184 -0.004521 0.5596 0.04911	-0.03844 0 -0.01145 0.5689 0.01359	
0.103 0.3878 22.55 0.06615 0.2476	-0.1327 -0.0372 0.6674 0.09367 0.09348	0 0.00251 0.04442 0.0007372 0	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269	-0.03844 0 -0.01145 0.5689 0.01359 0.07683	
0.103 0.3878 22.55 0.06615 0.2476 20.41	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453	0 0.00251 0.04442 0.0007372 0 0.17	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336	0 0.00251 0.04442 0.0007372 0 0.17 0.03166	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.04676 0.152 0.1077	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088 0.002755	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956 0.659	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0 0	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01027 0.01705 -0.003346 0.003088 0.002755 0.01147	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995 -0.02188	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351 -0.006443	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956 0.659 0.3496	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0 0 0.002615	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088 0.002755 0.01147 0.002154	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995 -0.02188 -0.02011	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351 -0.006443 -0.0306	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956 0.3956 0.09809	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0 0 0.002615 0.4546	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088 0.002755 0.01147 0.002154 0.0002043	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995 -0.02188 -0.02011 0.02788	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351 -0.006443 -0.0306 -0.0314	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956 0.09809 0.04134	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0 0 0.002615 0.4546 0.0894	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088 0.002755 0.01147 0.002154 0.0002043 0.008776	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995 -0.02188 -0.02011 0.02788 0.02346	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351 -0.006443 -0.0306 -0.0314 0.01893	
0.103 0.3878 22.55 0.06615 0.2476 20.41 4.202 0.3656 0.2749 0.6615 1.009 0.3326 0.7109 0.347 1.633 0.6001 0.6679 0.6165 0.3956 0.659 0.3496 0.09809 0.04134 0.02219	-0.1327 -0.0372 0.6674 0.09367 0.09348 0.7453 0.6336 -0.2169 0.0815 0.1123 0.143 -0.0274 -0.03862 0 0.2212 -0.1453 0.5089 0.1342 0 0 0.002615 0.4546 0.0894 0	0 0.00251 0.04442 0.0007372 0 0.17 0.03166 -0.003176 0 0 -0.002017 0 0.0009595 0 0.01027 0.01705 -0.003346 0.003088 0.002755 0.01147 0.002154 0.0002043 0.008776 -0.001612	0.03288 0.02184 -0.004521 0.5596 0.04911 0.03269 0.4747 0.1495 0.04424 0 0.04404 0.0339 0.05052 0.0001165 0.04571 0.09416 0.08369 0.1169 0.01697 0.04995 -0.02188 -0.02011 0.02788 0.02346 0.002061	-0.03844 0 -0.01145 0.5689 0.01359 0.07683 0.5835 0.1021 0.03832 0.04786 0.04351 -0.004279 0 0.07237 0.04693 0.06213 0.04676 0.152 0.1077 0.01351 -0.006443 -0.0306 -0.0314 0.01893 0.001059	
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5.81 17 13.5 8.93	2.440	Cs-137	Bi-214	Pb-214	
17 13.5 8.93	0.443	0.00816	0.443	0.563	
8.93	17 0.701		0.701	0.923	
	0.705	-0.0128 -0.011	0.705	0.7	
04.0	0.54	0.0162	0.54	0.556	
21.6	0.781	0.00471	0.781	0.901	
17.2	0.623	0.107	0.623	0.699	
12.9	0.644	0.0431	0.644	0.56	
21.8	0.722	0.00271	0.722	0.835	
11	0.628	0.0401	0.628	0.553	
4.81 4.99	0.236 0.341	-0.0185 -0.0107	0.236 0.341	0.39 0.483	
7.31	0.429	-0.0281	0.429	0.45	
0.983	0.0858	0	0.0858	0.0542	
19.9	0.691	0.0539	0.691	0.702	
-0.223	0.0484	0.0203	0.0484	0.191	
0.222	0.101	0	0.101	0.173	
4.43	0.202	0.0457	0.000	0.000	
0.0912	0.0333	0.0457	0.202 0.0333	0.368 0.0439	
0.974	0.000	0.00421	0.0333	0.0439	
0.506	0.182	0.0251	0.182	0.104	
0.349	0.156	-0.00527	0.156	0.0869	
-0.347	0.0589	0.0301	0.0589	0.041	
0.145	0.0957	0.0136	0.0957	0.167	
0.421	0.026	0.016	0.026	0.0571	
1.78	0.279	-0.0207	0.279	0.108	
-0.291	0.216	0.0123	0.216	0.145	
2.23	0.206	-0.00142	0.206	0.122	
	0.13	-0.0119	0.13	0.265	
1.13	0.013	0.00978	0.013	0.066	
1.13 0.746	0.209	0.0121	0.209	0.0824	
1.13	0.209			0.00=1	

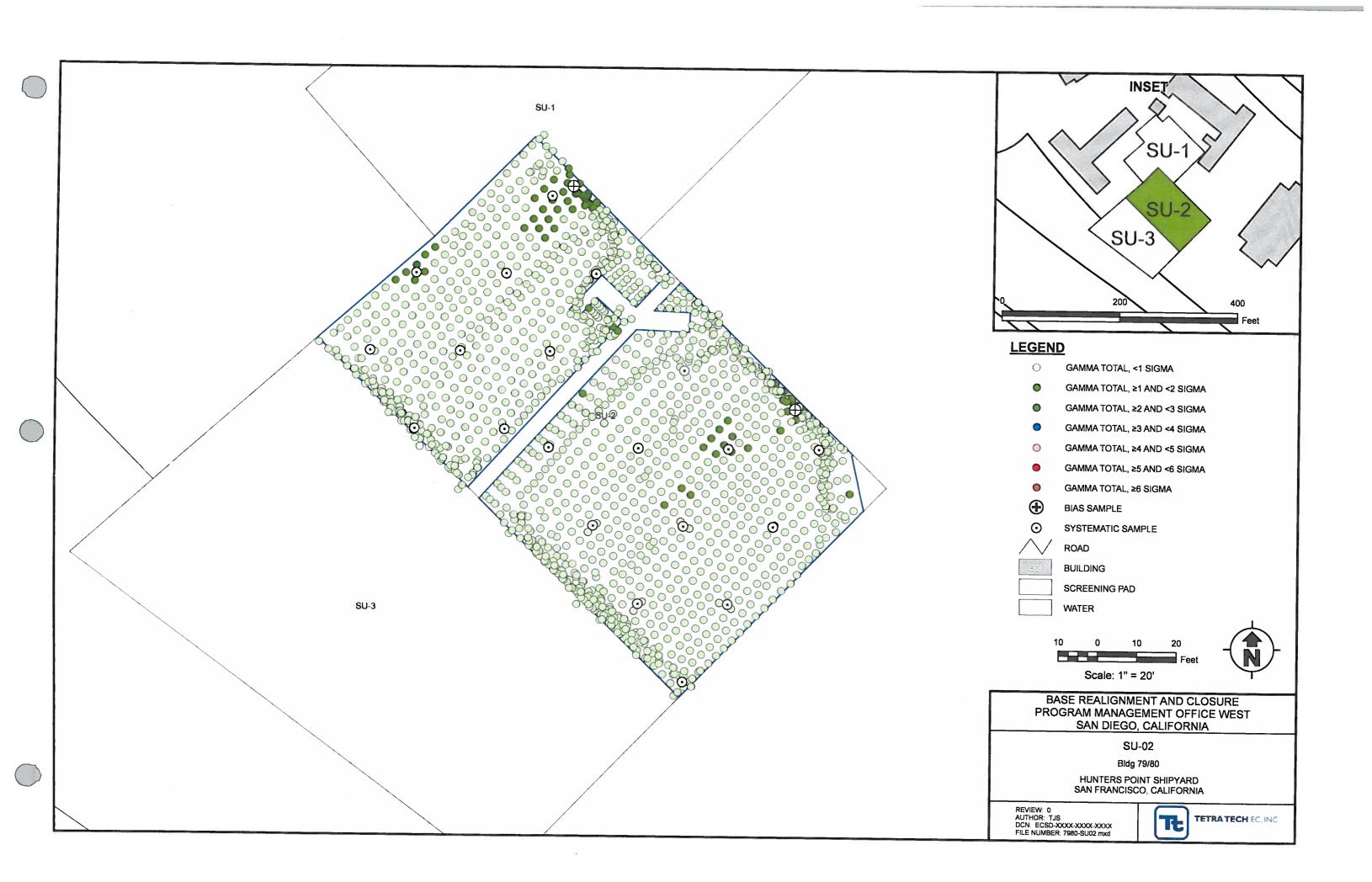
Sample Sample **COC Radiologica** Date Point Type Collected ID Technician 7980 3 2 Biased 077980-S0003-F002-01 11-Apr-12 Anthony Smith 7980 3 3 Systematic 077980-S0003-F003-01 11-Apr-12 Anthony Smith 7980 3 4 Systematic 077980-S0003-F004-01 11-Apr-12 Anthony Smith 7980 3 5 Systematic 077980-S0003-F005-01 11-Apr-12 Anthony Smith 7980 3 6 Systematic 077980-S0003-F006-01 11-Apr-12 Anthony Smith 7980 3 7 Systematic 077980-S0003-F007-01 11-Apr-12 Anthony Smith 7980 3 8 Systematic 077980-S0003-F008-01 11-Apr-12 Anthony Smith 7980 3 9 Systematic 077980-S0003-F009-01 11-Apr-12 Anthony Smith 7980 3 10 Systematic 077980-S0003-F010-01 | 11-Apr-12 Anthony Smith 7980 3 11 Systematic 077980-S0003-F011-01 | 11-Apr-12 | Anthony Smith 7980 3 12 Systematic 077980-S0003-F012-01 | 11-Apr-12 Anthony Smith 3 13 Systematic 077980-S0003-F013-01 | 11-Apr-12 /98U | Anthony Smith 7980 3 14 Systematic 5 077980-S0003-F014-01 11-Apr-12 Anthony Smith 7980 3 15 077980-S0003-F015-01 | 11-Apr-12 Systematic Anthony Smith 7980 3 16 077980-S0003-F016-01 11-Apr-12 Systematic Anthony Smith 7980 3 17 077980-აეეი3-F017-01 | 11-Apr-12 Systematic Anthony Smith 7980 3 18 Systematic 077980-S0003-F018-C1 | 11-Apr-12 Anthony Smith 7980 3 19 Systematic 077980-S0003-F019-01 | 11-Apr-12 Anthony Smith 7980 20 3 Systematic 077980-S0003-F020-01 11-Apr-12 Anthony Smith 7980 3 21 077980-S0003-F021-01 | 11-Apr-12 Systematic Anthony Smith 7980 3 22 Systematic 077980-S0003-F022-01 11-Apr-12 Anthony Smith 7980 23 3 Characterization 077980-S0003-F023-01 23-May-12 Rick Zahensky 7980 3 24 Characterization 077980-S0003-F024-01 | 23-May-12 Rick Zahensky 7980 3 25 Characterization 077980-S0003-F025-01 | 23-May-12 Rick Zahensky 7980 3 26 Characterization 077980-S0003-F026-01 23-May-12 Rick Zahensky 7980 3 27 Post-Remediation 077980-S0003-F027-01 29-May-12 Rick Zahensky 7980 3 28 Systematic 077980-S0003-F028-01 | 06-Jun-12 Rick Zahensky

	011-	Site Laboratory	(helid)	
K-40	Ra-226	Ra-226 Cs-137		Pb-214
20.53	0.4321	0	0.6139	0.5619
2.327	0.6625	0.016	0	0.08321
16.68	0.5168	0.08785	0.2324	0.4176
9.376	0.355	0.01312	0.3131	0.4078
17.21	0.4707	0.07664	0.336	0.3993
2.063	0.4687	0.01285	-0.01275	0.2298
8.403	0.3923	0.01992	0.2231	0.3474
16.3	1.04	0.04546	0.4853	0.5774
14.67	0.6822	0.01961	0.3365	0.5222
11.86	0.6482	0.006625	0.3019	0.4352
4.921	0.1965	0	0.08739	0.07117
10.95	0.7956	0.005949	0.3818	0.4547
17.07	1.078	0.04792	0.4632	0.5057
16.72	0.5496	-0.0005035	0.5319	0.5479
7.97	0.8494	0	0.3031	0.3233
0.5878	0.09573	0	0.06269	0.04347
11.94	0.5192	0.009367	0.5287	0.5466
13.63	0.3115	0.01601	0.4486	0.2559
5.444	0.4733	0.011	0.1841	0.2449
6.698	0.5513	0.005566	0.2974	0.1757
5.148	0.6437	0.00008576	0.1843	0.3832
10.25	0.4833	-0.005974	0.503	0.6777
9.074	0.5956	0	0.5058	0.5089
9.162	0.5792	0	0.4378	0.5702
11.31	0.6039	-0.01034	0.5651	0.6842
9.589	0.8554	0.007865	0.3286	0.5534
9.771	0.3344	0.005558	0.3884	0.4679
185 (nCi/a)				

On-Site Laboratory (pCi/g)

Off-Site Laboratory (pCi/g)						
K-40	Ra-226 Cs-137 Bi-		Bi-214	Pb-214		
	The state of					
1.36	0.0623	0.0066	0.0623	0.312		
14.7	0.559	0.0614	0.559	0.703		
9.68	0.268	-0.00179	0.268	0.458		
15.2	0.49	0.119	0.49	0.551		
1.49	0.29	-0.00263	0.29	0.11		
7.51	0.432	0.0306	0.432	0.393		
13	0.608	0.0248	0.608	0.601		
12.5	0.484	0.0304	0.484	0.788		
12.3	0.453	0.0455	0.453	0.695		
3.11	0.173	0.029	0.173	0.248		
10.9	0.376	0.0256	0.376	0.597		
15	0.546	0.0553	0.546	0.666		
14.1	0.538	-0.0137	0.538	0.665		
8.36	0.435	0.0173	0.435	0.606		
0.361	0.0364	0.000975	0.0364	0.11		
10.8	0.62	-0.00109	0.62	0.662		
8.31	0.453	0.0299	0.453	0.628		
4.16	0.259	0.0012	0.259	0.332		
6.41	0.356	0	0.356	0.421		
4.51	0.274	0.0159	0.274	0.41		
9.18	0.427	-0.0185	0.427	0.41		

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)



Date.	Time:				INSTRUMENTA	ATION USED		
11/18/2011	07:30	Model Inst/Det.	Şerial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background 4 (dpm/100cm2
Survey Numbe	r: HPS-SU-234	_						
Location:	Parcel C	_						
Surveyor:	R. Roberson			T .				
Reviewed By (Print & Sign)		2350-1 44-10	117563 215116	6/8/2012				
sotopes of Cor	ncem: 226Ra 90Sr 137Cs							
	Description of drawing:	Trench Sca	sn Survey					
DETAILA	02-C34-28-81 02-C34-28-81 02-C34-28-81 02-C34-28-81 03-C34-28-81 03-C34-28-81	MH-1027		- 02-C	234-28-24 C34-28-3R ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750-750 ME-92-750 M	MH-1011	172	34-28-8M
sigma investig	2350-1 Instrument is 3.59 - 7.26 gation level for 2350-1 Instrumen sentative of material surveyed.	•				# denotes G/A s # denotes conta # denotes highe LAW denotes statio - Unless Others	ct / 1 meter radiation n et radiation reading on Bres masslinn wipe location,	eadings. contact

SURVEYOR: R. Roberson					LOCATION:	Parcel C		T. 1000
		ire Rate /hr)	FI	xed + Removable	(NET)	Remova	ble (NET)	Comments
Location	Contact	1 Meter	Gamma (cpm)	AND TAKEN THE PROPERTY OF THE		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
1			5133					
2			5409					
3			5501					1.54
4			5376					
5			5280					
6_			5276					
7			5603					
8			5333				7 X 60	
9			5270					
10			5602					
. 11			5447					
12			5391					100
13			5184					
14			5331					
15			5502					
16	11.		5310 5666			1		
17 18			5213_					
<u> </u>	The second second	Spin visigning or the	5213	Resignment in profession	A NEW TOTAL PROPERTY OF THE PARTY OF	TEST OF THE STATE	Date:	Tage the confidence control of the

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SurveyOrintias Surv	5033	5501	5376	0603	2500	9/70	2603	5333	5270	2095	5447	5391	5184	5331	5502	5310	9995	5213	5340	5113	5374	5252	5461	5312	5103	5355	5292	5220	5437	5148	5359	5273	5422	5329	5237	5343	5316	5455	5138	5371	5480	2266	5229	5110	2586	5363
Surveyor-Acal Surveyor-Infinitals Surv	11/19/2011	11/18/2011	11/18/2011	11/18/2011	11/10/2011	11/10/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012
SurveyNee, Ala SurveyType DataType Bidg SurveyUnit Location 11653A					1	1		1												61	S.	11	72	£	4	ž.	9			<u>ق</u>	9		2	<u>ω</u>	4	ئ ا	5	9	7	œ	6	0	1			
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TETRA TECH EC, INC. 1230 Columbin St, Saite 750

San Diego, CA 92101

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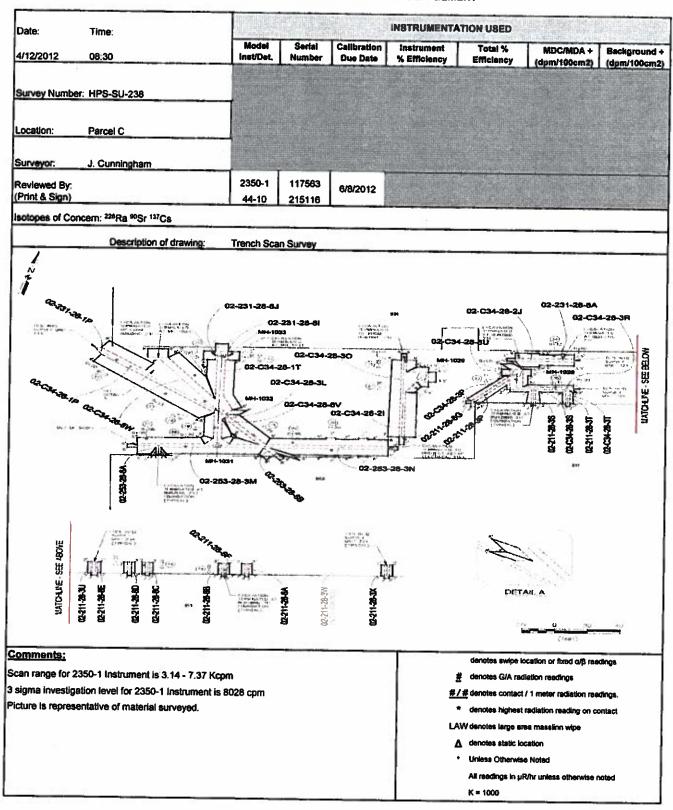
1331 Columbia Nt. Saite 754 TETRA TECH EC. INC.

San Dieta, C 192101

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Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, U.d. LABORATORY NAME LUCATION LABORATORY ID COMMENTS オルロロス **2 2** v = 0 0 ロイズスとの口口し > Σ > THE U) Ø (J) 949-756-7592 U) Ø ဟ 4044-0002 Containers LEVEL ΑŽ ş Project Chemist Phone Project Number Airbill Number TIME 11/18/2011 N.30 2211 1102/81/11 11/18/2011 1/05 11/18/2011 | 1120 11/18/2011 11/18/2011 DATE J. Consideration Project Chemist Parcel C Trench Survey Project Location HUNTERS POINT 02-PCT-234-013 02-PCT-234-014 02-PCT-234-015 02-PCT-234-016 SAMPLE ID 02-PCT-234-017 02-PCT-234-018 Sampler Name

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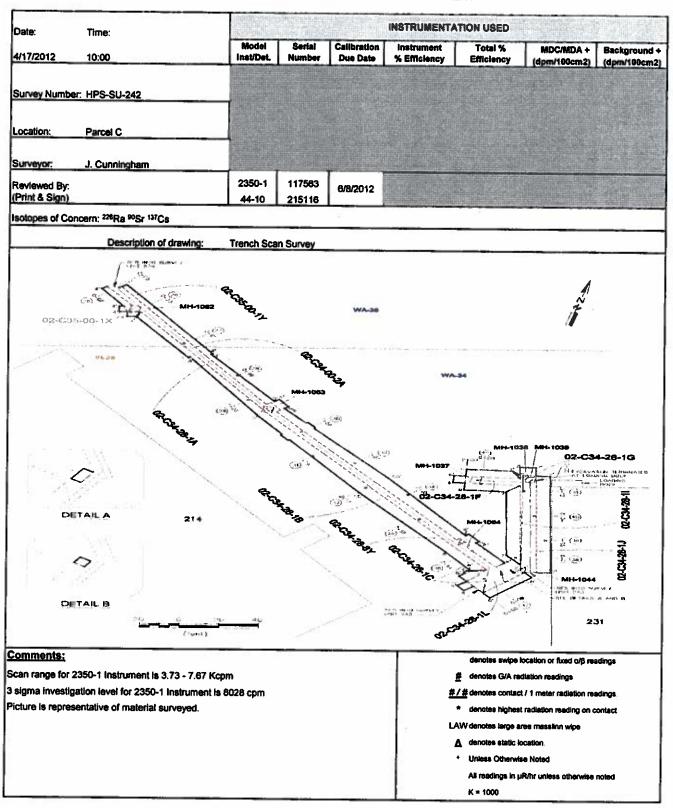
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Chain-of-Custody Record

TETRATECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

TS 00375

Project Information SAMPLE ID Section ONSITE - Curtis & Tompkins, LTD. LABORATORY NAME LOCATION LABORATORY TO ALL COMMENTS DOP <u>-</u> 8 Y II II I 8 K 6 0 Ø K Z [2] Σ 2 $\overline{\Sigma}$ [2] -<+ TYPE S ည ş S S S 5 Š S ည ည ŝ Project Chemist Phone 949-756-7592 4044-0002 LEVEL ¥ ¥ Containers Project Number Airbill Number PO Number 1300 472612 132714 TIME 41772012 1315 41772012 1324 41772012 | 1333 41772012 1303 4/17/2012 130/e 41772012 1312 41772012 1318 41772012 136A 41772012 1330 41172012 1321 4/17/2012 DATE Sampler Name Project Name Parcel C Trench Survey Project Chemist LISA BIENKOWSKI Project Location HUNTERS POINT 02-PCT-242-025 02-PCT-242-026 02-PCT-242-028 02-PCT-242-030 02-PCT-242-027 02-PCT-242-029 02-PCT-242-032 02-PCT-242-033 02-PCT-242-035 02-PCT-292-036 02-PCT-242-031 02-PCT-242-034 SAMPLE_ID

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TETRATECH EC, INC. 1230 Columbia St, Salte 750 San Diego, CA 92101

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Date: Time:				INSTRUMENTA	TION USED		
5/22/2012 09:30	Model Inst/Det	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-302							
Location: Parcel C	ļ						
Surveyor: R. Roberson			,				
Reviewed By: (Print & Sign)	2350-1 44-10	120588 81878	10/16/2012				
Isotopes of Concern: 228Ra 90Sr 137Cs							
Description of drawing:	Trench Sca	n Survey					
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Comments: Scan range for 2350-1 Instrument is 2.77 - 5.98 Kc; 3 sigma investigation level for 2350-1 Instrument is Picture is representative of material surveyed.				L	# denotes G/A ra //# denotes contact denotes higher AW denotes large unless Otherwi	ct / 1 meter radiation ru it radiation reading on trea masslinn wipe location.	edings contact

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DateTime	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	4/12/2012	4/42/2042	7107/71/4	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/12/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012
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SurveyUnit	234	234	234 F	234	234	234	234	234 F	234	234	734	DEC.	734	74A F	234	234 F	234	VEC	000	067	862	238	238	238 F	238	238 F	238 F	238 F	238 F	238 F	238 F	238 F	238 F	238 F	236	238 F	238 F	24.	242 F	242 F	242	242	242 F	242	242	24.	24
Bidg	ק	PCT	ק	ᇈ	ַבַ	ַלֱ	קַ	ַלַ	يَ	ַלַ	בַ	֖֭֭֭֓֞֝֞֓֓֓֓֓֓֓֓֡֓	֓֞֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	֖֖֖֖֓֞֝֞֞֞	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	֖֖֖֖֖֖֖֖֓֞֞֞֞֞֞	֓֞֝֞֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	2	2	ᇈ	ק	PCT	קל	텇	녆	마	קַ	迃	迃	ק	迃	皮	迃	קַ	덫	<u></u>	녆	<u> </u>	<u> </u>	둧	<u> </u>	迃	Į	ט	힏
DataType	GST	GST	GST	ST	GST	651	्ड् र	GST	GST	GST	وا	ָלָן טָּלָן	פָּל	֓֞֞֜֜֜֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	ا پا	ָּלָם פַּל	ָּלָן פַּלּ	 		150	651	GST	GST	GST	GST	GST	 	GST	GST	<u> </u>	GST	ट्य	SST SST	टुर	est	GST	GST	GST	GST	 	 	GST	GST	 	 	<u>651</u>	GST
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235010 5	S99 11651A	S99 11651A	599 116S1A	599 116S1A	599 11651A	599	599 116S1A	2002	599 11651A	599 11651A	2002	100	1 200		1007	1001	1002	122	299	599 1	299	599 1	5991	599 1	599	599	509	599 1	500	200	5002	599 1	599	599	599	599	590	599	2007	2002	2 6	500	2002	2002	5007	590	599

TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

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Chain-of-Custody Record

TETRA TECH EC, INC. 1230 Columbia St, Suite 750

San Diego, CA 92101

ody Record

TS 00384

Project Information SAMPLE ID Section ONSITE - Curtis & Tompldns, LTD. LABORATORY NAME LOCATION COMMENTS 女工を狂々 8 K 6 0 1 Σ Σ [2] OKMASAS **>** TYPE ည ည જ S က် ડ Project Chemist Phone 949-756-7592 4044-0002 Containers LEVEL ٨ N/A Project Number Airbill Number PO Number 57272012 105 TIME 5222012 104S 522/2012 1039 SR222012 /048 SI222012 1042 5/22/2012 JOSC DATE Sampler Name

CLOAMING
Proper Chemist
LISA BIENKOWSKI Project Name Parcel C Trench Survey Project Location HUNTERS POINT 02-FCT-302-018 02-FCT-302-019 02-PCT-302-017 02-PCT-302-020 02-PCT-302-021 02-PCT-302-022 SAFIPLE_ID

TU 302

Located in Parcel C

05/08/12: Issued drawing to identify locations for investigative sample collection (1-4)

05/09/12: Performed walkover survey to identify scan range

05/09/12: Collected 4 investigative samples (1-4)

05/17/12: No activity above the release criteria was identified in the investigative samples (1-4)

05/17/12: Issued drawing to identify locations for systematic sample collection (5-22)

05/22/12: Collected 18 systematic samples (5-22)

05/28/12: No activity above the release criteria was identified

05/31/12: Issued Figures 1-1/3-1 for Internal Draft SUPR

07/10/12: The RSO provided the RASO with the Internal Draft SUPR and requested for concurrence to

backfill.

07/12/12: RASO concurs on backfilling the trench

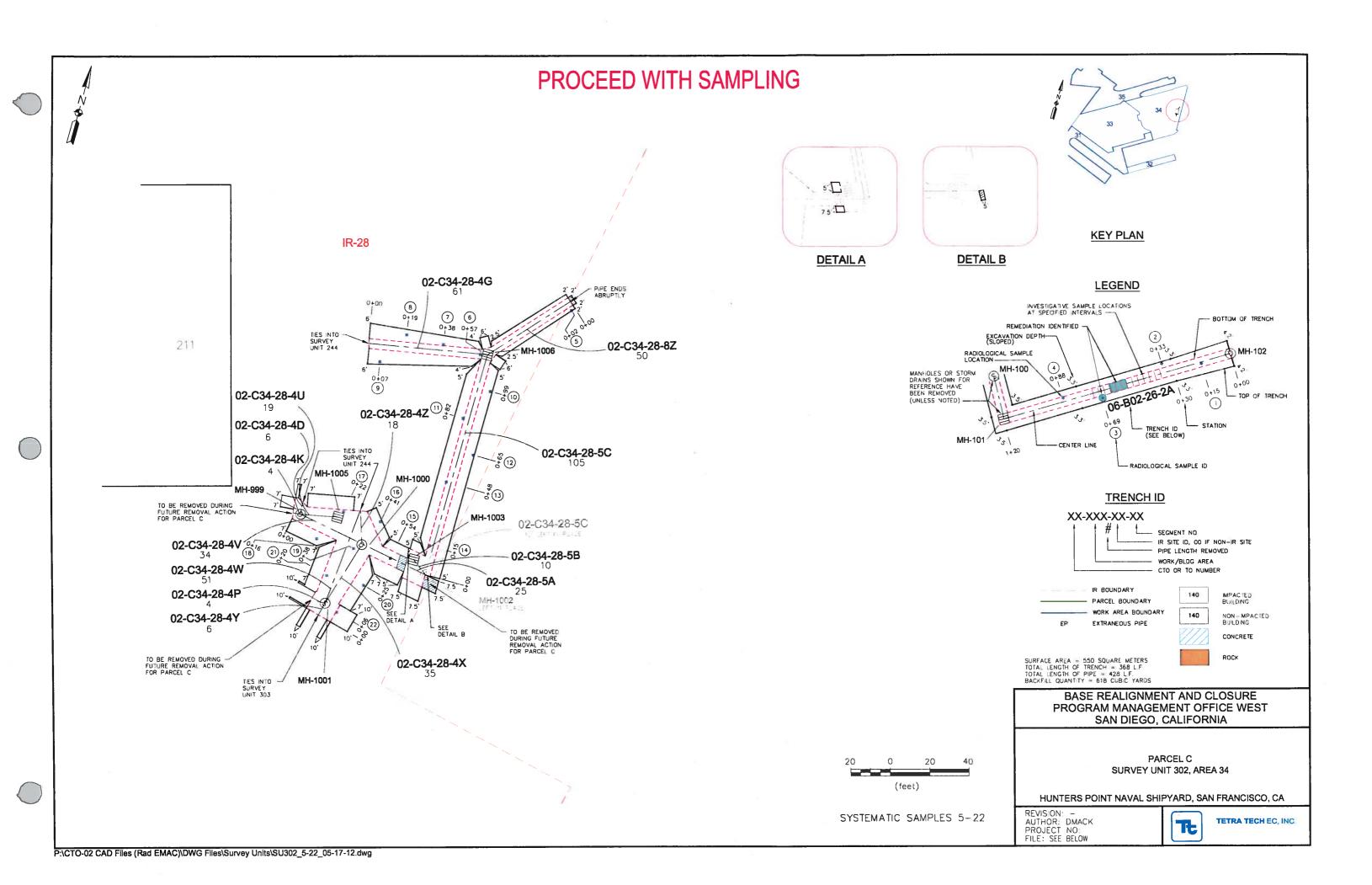
07/16/12: Backfilling initiated with 48 cubic yards of Mills Peninsula import soils

07/17/12: Backfilling continued with 432 cubic yards of Mills Peninsula import soils

07/18/12: Backfilling completed with 144 cubic yards of Mills Peninsula import soils

08/07/12: CBD used Engineer's volume estimate of 550 cubic yards backfilled instead of field estimate of

624 cubic yards.



	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
PCT	302	1	Investigative	02-PCT-302-001	9-May-12	Joe Cunningham
PCT	302	2	Investigative	02-PCT-302-002	9-May-12	Joe Cunningham
PCT	302	3	Investigative	02-PCT-302-003	9-May-12	Joe Cunningham
PCT	302	4	Investigative	02-PCT-302-004	9-May-12	Joe Cunningham
PCT	302	5	Systematic	02-PCT-302-005	22-May-12	Joe Cunningham
PCT	302	6	Systematic	02-PCT-302-006	22-May-12	Joe Cunningham
PCT	302	7	Systematic	02-PCT-302-007	22-May-12	Joe Cunningham
PCT	302	8	Systematic	02-PCT-302-008	22-May-12	Joe Cunningham
PCT	302	9	Systematic	02-PCT-302-009	22-May-12	Joe Cunningham
PCT	302	10	Systematic	02-PCT-302-010	22-May-12	Joe Cunningham
PCT	302	11	Systematic	02-PCT-302-011	22-May-12	Joe Cunningham
PCT	302	12	Systematic	02-PCT-302-012	22-May-12	Joe Cunningham
PCT	302	13	Systematic	02-PCT-302-013	22-May-12	Joe Cunningham
PCT	302	14	Systematic	02-PCT-302-014	22-May-12	Joe Cunningham
PCT	302	15	Systematic	02-PCT-302-015	22-May-12	Joe Cunningham
PCT	302	16	Systematic	02-PCT-302-016	22-May-12	Joe Cunningham
PCT	302	17	Systematic	02-PCT-302-017	22-May-12	Joe Cunningham
PCT	302	18	Systematic	02-PCT-302-018	22-May-12	Joe Cunningham
PCT	302	19	Systematic	02-PCT-302-019	22-May-12	Joe Cunningham
PCT	302	20	Systematic	02-PCT-302-020	22-May-12	Joe Cunningham
PCT	302	21	Systematic	02-PCT-302-021	22-May-12	Joe Cunningham
PCT	302	22	Systematic	02-PCT-302-022	22-May-12	Joe Cunningham
E20	642	1	Biased	04-PE-E0642-01	21-Feb-12	Marie Winder
E20	642	2	Biased	04-PE-E0642-02	21-Feb-12	Marie Winder
E20	642	3	Biased	04-PE-E0642-03	21-Feb-12	Marie Winder
E20	642	4	Biased	04-PE-E0642-04	21-Feb-12	Marie Winder
E20	642	5	Biased	04-PE-E0642-05	21-Feb-12	Marie Winder
E20	642	6	Biased	04-PE-E0642-06	21-Feb-12	Marie Winder
E20	642	7	Biased	04-PE-E0642-07	21-Feb-12	Marie Winder
E20	642	8	Biased	04-PE-E0642-08	21-Feb-12	Marie Winder
E20	642	9	Biased	04-PE-E0642-09	21-Feb-12	Marie Winder
E20	642	10	Biased	04-PE-E0642-10	21-Feb-12	Marie Winder
E20	642	11	Systematic	04-PE-E0642-11	21-Feb-12	Marie Winder
E20	642	12	Systematic	04-PE-E0642-12	21-Feb-12	Marie Winder
E20	642	13	Systematic	04-PE-E0642-13	21-Feb-12	Marie Winder
E20	642	14	Systematic	04-PE-E0642-14	21-Feb-12	Marie Winder
E20	642	15	Systematic	04-PE-E0642-15	21-Feb-12	Marie Winder
E20	642	16	Systematic	04-PE-E0642-16	21-Feb-12	Marie Winder
E20	642	17	Systematic	04-PE-E0642-17	21-Feb-12	Marie Winder
E20	642	18	Systematic	04-PE-E0642-18	21-Feb-12	Marie Winder
E20	642	19	Systematic	04-PE-E0642-19	21-Feb-12	Marie Winder
E20	642	20	Systematic	04-PE-E0642-20	21-Feb-12	Marie Winder
E20	642	21	Systematic	04-PE-E0642-21	21-Feb-12	Marie Winder
E20	642	22	Systematic	04-PE-E0642-22	21-Feb-12	Marie Winder

On-Site	Laboratory	(pCi/g)
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K-40	Ra-226	Cs-137	Bi-214	Pb-214
10.44	0.6771	0.006485	0.4463	0.445
11.84	1.021	0.001174	0.5159	0.565
12.01	1.056	0.01849	0.5321	0.4782
10.77	0.928	0.01786	0.5633	0.7558
1.624	-0.01469	0.01446	0.03351	0.1391
1.74	-0.1275	0.001969	0.02143	0.07385
1.18	0.3231	0.01077	0.04333	0.061
0.9761	0.05238	0	0.02773	0.07599
1.639	0.02926	-0.003704	0.05798	0.07943
1.509	0.2709	0	0.06214	0.0467
1.097	-0.02643	-0.00472	0.07261	0.04614
1.089	0.03933	0	0.06572	0.05792
1.067	-0.02867	0	-0.06331	0.1845
0.3496	-0.00745	-0.00332	0.04801	0.01714
0.9525	0.1659	-0.009553	0.07832	0.08339
0.9337	0.03742	-0.000001871	0	0.05151
2.533	0.3881	0.005208	0.09374	0.1305
1.952	-0.07401	0	0.04524	0.1874
0.3814	-0.151	0.002022	0.03047	0.09509
0.8222	0.5844	0.0004525	-0.005864	0.0317
2.777	0.01699	0.01134	0.09316	0.05436
0.8373	0.1714	0.01792	-0.00854	0.008091
9.777	1.633	0.002965	1.112	1.231
10.11	1,494	-0.004565	1.1	1.092
7.521	0.748	-0.008032	0.9372	0.9988
8.709	1.784	0.002631	1.153	1.212
7.071	1.543	0.01186	1.023	1.115
10.29	0.8462	-0.003166	0.8751	0.9221
9.247	1.196	0.01865	0.895	1.072
9.189	0.9857	-0.00146	1.082	1.21
10.36	0.7627	0	0.7617	0.8926
10.11	1.698	0.002623	1.182	1.342
8.969	0.7551	-0.007591	0.684	0.7395
9.489	0.9683	0.001427	0.7564	0.8397
8.773	0.5134	0.005011	0.6593	0.764
10.09	1.25	0.00003886	0.8811	0.8787
11.93	1.01	0.01054	0.7806	0.7864
10.11	1.297	0.004751	0.5521	0.7028
8.545	1.214	0.0004183	0.7789	0.96
11.1	0.9683	-0.0001923	0.6024	0.6267
11.37	0.7214	0	0.6835	0.672
9.938	1.143	-0.01274	1.054	1.1
9.767	1.317	0	0.9975	0.935
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	0.167	0.0247	0.167	0.17
1.25	0.0463	-0.00357	0.0463	0.127
1.06	0.0234	0.0097	0.0234	0.16
0.569	0.209	0	0.209	0.0249
1.09	0.164	0.0123	0.164	0.159
1.83	0.124	0.0194	0.124	0.242
0.699	0.23	0.00677	0.23	0.179
0.751	0.0818	-0.0157	0.0818	0.0958
2.1	0.181	-0.001	0.181	0.0745
-0.238	0.0962	0	0.0962	0.0675
0.8	-0.0329	-0.000153	-0.0329	0.188
0.725	0.0957	-0.0125	0.0957	0.135
1,6	0.28	0.0112	0.28	0.236
1.92	0.0616	0	0.0616	0.262
-0.204	0.0523	-0.00244	0.0523	0.0813
-0.536	0.0348	-0.00987	0.0348	0.1
2.11	0.275	0.0192	0.275	0.125
0.654	0.102	0.0161	0.102	0.29

Anna	Survey	Sample	Sample	Sample	Date	COC Radiological				
Area	Unit	Point	Туре	ID	Collected	Technician				
E20	642	23	Systematic	04-PE-E0642-23	21-Feb-12	Marie Winder				
E20	642	24	Systematic	04-PE-E0642-24	21-Feb-12	Marie Winder				
E20	642	25	Systematic	04-PE-E0642-25	21-Feb-12	Marie Winder				
E20	642	26	Systematic	04-PE-E0642-26	21-Feb-12	Marie Winder				
E20	642	27	Systematic	04-PE-E0642-27	21-Feb-12	Marie Winder				
E20	642	28	Systematic	04-PE-E0642-28	21-Feb-12	Marie Winder				
E20	642	29	Characterization	04-PE-E0642-29	7-Mar-12	Marie Winder				
E20	642	30	Characterization	04-PE-E0642-30	7-Mar-12	Marie Winder				
E20	642	31	Characterization	04-PE-E0642-31	7-Mar-12	Marie Winder				
E20	642	32	Characterization	04-PE-E0642-32	7-Mar-12	Marie Winder				
E20	642	33	Charauterization	04-PE-E0642-33	15-Mar-12	Marie Winder				
E09	643	1	Biased	04 PF-E0643-01	20-Feb-12	Marie Winder				
E09	643	2	Biased	04-PE-E0643-02	20-Feb-12	Marie Winder				
E09	643	3	Biased	04-PE-E0643-03	20-Feb-12	Marie Winder				
E09	643	4	Biased	04-PE-E0643-04	20-Feb-12	Marie Winder				
E09	643	5	Biased	04-PE-E0643-05	20-Feb-12	Marie Winder				
E09	643	6	Biased	04-PE-E0643-06	20-Feb-12	Marie Winder				
E09	643	7	Biased	04-PE-E0643-07	20-Feb-12	Marie Winder				
E09	643	8	Systematic	04-PE-E0643-08	20-Feb-12	Marie Winder				
E09	643	9	Systematic	04-PE-E0643-09	20-Feb-12	Marie Winder				
E09	643	10	Systematic	04-PE-E0643-10	20-Feb-12	Marie Winder				
E09	643	11	Systematic	04-PE-E0643-11	20-Feb-12	Marie Winder				
E09	643	12	Systematic	04-PE-E0643-12	20-Feb-12	Marie Winder				
E09	643	13	Systematic	04-PE-E0643-13	20-Feb-12	Marie Winder				
E09	643	14	Systematic	04-PE-E0643-14	20-Feb-12	Marie Winder				
E09	643	15	Systematic	04-PE-E0643-15	20-Feb-12	Marie Winder				
E09	643	16	Systematic	04-PE-E0643-16	20-Feb-12	Marie Winder				
E09	643	17	Systematic	04-PE-E0643-17	20-Feb-12	Marie Winder				
E09	643	18	Systematic	04-PE-E0643-18	20-Feb-12	Marie Winder				
E09	643	19	Systematic	04-PE-E0643-19	20-Feb-12	Marie Winder				
E09	643	20	Systematic	04-PE-E0643-20	20-Feb-12	Marie Winder				
E09	643	21	Systematic	04-PE-E0643-21	20-Feb-12	Marie Winder				
E09	643	22	Systematic	04-PE-E0643-22	20-Feb-12	Marie Winder				
E09	643	23	Systematic	04-PE-E0643-23	20-Feb-12	Marie Winder				
E09	643	24	Systematic	04-PE-E0643-24	20-Feb-12	Marie Winder				
E09	643	25	Systematic	04-PE-E0643-25	20-Feb-12	Marie Winder				
E08	644	1	Biased	04-PE-E0644-01	28-Feb-12	Marie Winder				
E08	644	2	Biased	04-PE-E0644-02	28-Feb-12	Marie Winder				
E08	644	3	Biased	04-PE-E0644-03	28-Feb-12	Marie Winder				
E08	644	4	Biased	04-PE-E0644-04	28-Feb-12	Marie Winder				
E08	644	5	Biased	04-PE-E0644-05	28-Feb-12	Marie Winder				
E08	644	6	Biased	04-PE-E0644-06	28-Feb-12	Marie Winder				
E08	644	7 Biased		04-PE-E0644-07	28-Feb-12	Marie Winder				
E08	644	8	Biased	04-PE-E0644-08	28-Feb-12	Marie Winder				

11.46 5.022 12.77 10.68 8.643 9.903	1.292 1.322 0.4422	-0.0001891	K-40 Ra-226 Cs-137 Bi-214 Pb-214 11.46 1.292 -0.0001891 0.5196 0.8283												
5.022 12.77 10.68 8.643	1.322			0.0000											
12.77 10.68 8.643		1 0004045													
10.68 8.643	0.4422	0.001215	0.7593	0.9259											
8.643	0.0757	0.0009493	0.8085	0.7719											
	0.8757	-0.002949	0.8006	0.6686											
	1.151	0.001585	0.9153	0.8994											
	0.73	-0.01572	0.8297	0.8301											
8.92	0.8794	-0.01208	0.715	0.6964											
9.645	1.353	0.00731	1.095	1.072											
12.21	1.066	0 000405	0.8007	0.9408											
11.72	1.891	-0.003195	0.9274	1.107											
11.31	1.36	0.001964	0.7773	0.8268											
10.14	1.187	0.008094	1.235	1.398											
10.7	0.8059	-0.004474	1.133	1.125											
19.73	0.6708	0.003788	0.5641	0.6531											
14.63	1.148	0	0.6827	0.7243											
12.47	1.26	0 0004000	0.4997	0.868											
12.13	0.8072	-0.0004388	0.9502	0.9927											
15.49	0.4838	-0.0005377	0.6015	0.6568											
11.25	0.5491	-0.006964	0.6838	0.6991											
9.882	0.9414	0.01758	0.5653	0.6673											
8.452	1.005	-0.006508	0.7258	0.8101											
10.56	0.9259	0.0002606	0.6431	0.6809											
12.18	0.4745	0.0003576	0.7328	0.7305											
11.11	0.9431	0.0006881	0.4984	0.6299											
9.423	1.01	-0.0008747	0.9459	0.8425											
11.24	0.8587	0.01661	0.7565	0.8942											
11.69	0.8246	0.01832	0.6853	0.7188											
11.89	1.164	-0.004481	0.5077	0.7386											
17.13	0.7488	-0.002082	0.4123	0.5256											
12.15	0.6749	-0.008129	0.4863	0.6155											
17.26	0.8191	-0.00006842	0.3564	0.506											
14.13	0.6001	0.001012	0.6683	0.6165											
19,83	0.621	0.007129	0.5636	0.4354											
11.89	1.117	0.006237	0.5256	0.5102											
11.91	1.348	0.001702	0.747	0.7316											
11.4	1.205	-0.007337	1.144	1.153											
8.338	1.406	0.000004147	1.136	1.305											
8.883	1.108	0.0009373	1.163	1.356											
6.732	1.257	0 004004	1.004	1.155											
8.767 8.543		-0.004904 0	1.116 1.165	1.284											

1.334

10.43 8.522 0.00918

0.002086

1.115

1.165

1.267

1.307

Off-Site Laboratory (pCi/g) Cs-137 Bi-214 Pb-214

	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Type	ID	Collected	Technician
E08	644	9	Biased	04-PE-E0644-09	28-Feb-12	Marie Winder
E08	644	10	Biased	04-PE-E0644-10	28-Feb-12	Marie Winder
E08	644	11	Biased	04-PE-E0644-11	28-Feb-12	Marie Winder
E08	644	12	Biased	04-PE-E0644-12	28-Feb-12	Marie Winder
E08	644	13	Biased	04-PE-E0644-13	28-Feb-12	Marie Winder
E08	644	14	Biased	04-PE-E0644-14	28-Feb-12	Marie Winder
E08	644	15	Systematic	04-PE-E0644-15	28-Feb-12	Marie Winder
E08	644	16	Systematic	04-PE-E0644-16	28-Feb-12	Marie Winder
E08	644	17	Systematic	04-PE-E0644-17	28-Feb-12	Marie Winder
E08	644	18	Systematic	04-PE-E0644-18	28-Feb-12	Marie Winder
E08	644	19	Systematic	04-PE-E0644-19	28-Feb-12	Marie Winder
E08	644	20	Systematic	04-PE-E0644-20	28-Feb-12	Marie Winder
E08	644	21	Systematic	04-PE-E0644-21	28-Feb-12	Marie Winder
E08	644	22	Systematic	04-PE-E0644-22	28-Feb-12	Marie Winder
E08	644	23	Systematic	04-PE-E0644-23	28-Feb-12	Marie Winder
E08	644	24	Systematic	04-PE-E0644-24	28-Feb-12	Marie Winder
E08	644	25	Systematic	04-PE-E0644-25	28-Feb-12	Marie Winder
E08	644	26	Systematic	04-PE-E0644-26	28-Feb-12	Marie Winder
E08	644	27	Systematic	04-PE-E0644-27	28-Feb-12	Marie Winder
E08	644	28	Systematic	04-PE-E0644-28	28-Feb-12	Marie Winder
E08	644	29	Systematic	04-PE-E0644-29	28-Feb-12	Marie Winder
E08	644	30	Systematic	04-PE-E0644-30	28-Feb-12	Marie Winder
E08	644	31	Systematic	04-PE-E0644-31	28-Feb-12	Marie Winder
E08	644	32	Systematic	04-PE-E0644-32	28-Feb-12	Marie Winder
E08	644	33	Characterization	04-PE-E0644-33	15-Mar-12	Marie Winder
E08	644	34	Characterization	04-PE-E0644-34	15-Mar-12	Marie Winder
E08	644	35	Characterization	04-PE-E0644-35	15-Mar-12	Marie Winder
E08	644	36	Characterization	04-PE-E0644-36	15-Mar-12	Marie Winder
E07	645	1	Biased	04-PE-E0645-01	24-Apr-12	Jeff Rolfe
E07		2	Biased	04-PE-E0645-02	24-Apr-12	Jeff Rolfe
E07	645	3	Biased	04-PE-E0645-03	24-Apr-12	Jeff Rolfe
E07		4	Biased	04-PE-E0645-04	24-Apr-12	Jeff Rolfe
E07	+	5	Biased	04-PE-E0645-05	24-Apr-12	Jeff Rolfe
E07		6	Biased	04-PE-E0645-06	24-Apr-12	Jeff Rolfe
E07	645	7	Biased	04-PE-E0645-07	24-Apr-12	Jeff Rolfe
E07	+	8	Systematic	04-PE-E0645-08	24-Apr-12	Jeff Rolfe
E07	_	9	Systematic	04-PE-E0645-09	24-Apr-12	Jeff Rolfe
E07	+	10	Systematic	04-PE-E0645-10	24-Apr-12	Jeff Rolfe
E07		11	Systematic	04-PE-E0645-11	24-Apr-12	Jeff Rolfe
E07	+	12	Systematic	04-PE-E0645-12	24-Apr-12	Jeff Rolfe
E07		13	Systematic	04-PE-E0645-13		Jeff Rolfe
E07		14	Systematic	04-PE-E0645-14		
E07		15	Systematic	04-PE-E0645-15	+	
E07		16	Systematic	04-PE-E0645-16		

On-Site Laboratory (pCi/g)													
K-40	Ra-226	Cs-137	Bi-214	Pb-214									
9.135	1.038	0.001309	1.1	1.244									
8.259	0.814	0.001332	0.8247	0.9353									
7.992	1.491	-0.009793	1.361	1.54									
8.946	0.8375	0.005088	0.8749	0.9432									
8.655	0.6721	0	0.667	0.9609									
8.359	1.325	0.003308	1.118	1.177									
9.005	1.127	-0.00005525	0.8938	0.9698									
9.698	1.677	0	1.053	1.056									
8.569	1.932	0.01279	1.261	1.466									
9.201	1.275	0.009044	0.747	0.9634									
10.46	0.8392	0.007498	0.8023	0.8587									
9.944	1.056	0.008981	0.7784	0.8405									
6.756	0.8875	-0.001482	0.9662	1.046									
8.938	1,569	0	0.8319	1.044									
9.148	1.428	-0.0002595	1.175	1.362									
10.35	0.996	0.00223	0.8824	0.988									
8.924	0.5089	-0.001003	0.8721	0.916									
9.717	0.5526	0.01115	0.6506	0.6031									
10.05	0.6068	-0.008682	0.7451	0.7236									
6.947	1.179	0.0116	0.803	0.9065									
9.349	0.7631	0.001247	0.7629	0.7469									
14.04	0.417	0.007556	0.5378	0.6637									
9.113	0.6804	-0.0005737	0.6288	0.764									
7.507	1.297	0.01065	0.8579	0.6753									
10.79	0.6663	0.007039	0.6736	0.6624									
8.413	1.193	0.003763	0.7782	0.971									
7.831	1.145	0.001159	0.9242	0.9778									
8.545	1.137	-0.008324	0.783	0.9059									
8.659	1.024	-0.001956	1.032	1.096									
10.62	1.419	0.001324	0.9855	1.203									
8.617	1.934	-0.0002162	1.167	1.404									
11.95	0.9436	0.01012	0.4337	0.5964									
11.05	0.9386	-0.0002399	0.6464	0.7524									
9.966	1.268	0.002277	0.7404	0.8226									
10.23	0.9073	-0.0104	0.8124	0.8685									
9.759	1.232	0	0.8063	0.9867									
9.209	1.269	0.007185	1.025	1.184									
9.5	1.269	0.009418	0.9847	1.066									
9.57	0.7431	0	0.7789	0.7793									
8.879	1.339	-0.01317	0.9731	1.289									
12.05	0.596	0.008873	0.5815	0.6293									
9.815	1.018	0.01082	0.8161	1.055									
9.879	0.75	-0.009951	0.7509	0.909									
9.852	0.5512	0	0.5	0.7552									

Off-Site Laboratory (pCi/g) Pb-214 Cs-137 Bi-214

108	Survey	Sample	Sample	Sample	Date	COC Radiological				
Area	Unit	Point	Type	ID	Collected	Technician				
E07	645	17	Systematic	04-PE-E0645-17	24-Apr-12	Jeff Rolfe				
E07	645	18	Systematic	04-PE-E0645-18	24-Apr-12	Jeff Rolfe				
E07	645	19	Systematic	04-PE-E0645-19	24-Apr-12	Jeff Rolfe				
E07	645	20	Systematic	04-PE-E0645-20	24-Apr-12	Jeff Rolfe				
E07	645	21	Systematic	04-PE-E0645-21	24-Apr-12	Jeff Rolfe				
E07	645	22	Systematic	04-PE-E0645-22	24-Apr-12	Jeff Rolfe				
E07	645	23	Systematic	04-PE-E0645-23	24-Apr-12	Jeff Rolfe				
E07	645	24	Systematic	04-PE-E0645-24	24-Apr-12	Jeff Rolfe				
E07	645	25	Systematic	04-PE-E0645-25	24-Apr-12	Jeff Rolfe				
E07	645	26	Characterization	04-PE-E0645-26	7-May-12	Marie Winder				
EU7	545	27	Characterizaน็อก	04-PE-E0645-27	7-May-12	Marie Winder				
E07	645	28	Characterization	04-7F-E0645-28	7-May-12	Marie Winder				
E07	645	29	Characterization	04-PE-E0615-29	11-May-12	Marie Winder				
E07	645	30	Characterization	04-PE-E0645-30	11-May-12	iviarie Winder				
E07	645	31	Characterization	04-PE-E0645-31	18-May-12	Marie Winder				
E07	645	32	Characterization	04-PE-E0645-32	18-May-12	Marie Winder				
E19	691	1	Biased	04-PE-E0691-01	27-Apr-12	Marie Winder				
E19	691	2	Biased	04-PE-E0691-02	27-Apr-12	Marie Winder				
E19	691	3	Systematic	04-PE-E0691-03	27-Apr-12	Marie Winder				
E19	691	4	Systematic	04-PE-E0691-04	27-Apr-12	Marie Winder				
E19	691	5	Systematic	04-PE-E0691-05	27-Apr-12	Marie Winder				
E19	691	6	Systematic	04-PE-E0691-06	27-Apr-12	Marie Winder				
E19	691	7	Systematic	04-PE-E0691-07	27-Apr-12	Marie Winder				
E19	691	8	Systematic	04-PE-E0691-08	27-Apr-12	Marie Winder				
E19	691	9	Systematic	04-PE-E0691-09	27-Apr-12	Marie Winder				
E19	691	10	Systematic	04-PE-E0691-10	27-Apr-12	Marie Winder				
E19	691	11	Systematic	04-PE-E0691-11	27-Apr-12	Marie Winder				
E19	691	12	Systematic	04-PE-E0691-12	27-Apr-12	Marie Winder				
E19	691	13	Systematic	04-PE-E0691-13	27-Apr-12	Marie Winder				
E19	691	14	Systematic	04-PE-E0691-14	27-Apr-12	Marie Winder				
E19	691	15	Systematic	04-PE-E0691-15		Marie Winder				
E19	691	16	Systematic	04-PE-E0691-16		Marie Winder				
E19	691	17	Systematic	04-PE-E0691-17	 	Marie Winder				
E19	691	18	Systematic	04-PE-E0691-18		Marie Winder				
E19	691	19	Systematic	04-PE-E0691-19		Marie Winder				
E19	691	20	Systematic	04-PE-E0691-20		Marie Winder				
E11	693	1	Biased	04-PE-E0693-01	-					
E11	693	2	Biased	04-PE-E0693-02						
E11	693	3	Biased	04-PE-E0693-03						
E1'	693	4	Biased	04-PE-E0693-04						
E1	1 693	5	Biased	04-PE-E0693-05	+					
E1'	1 693	6	Biased	04-PE-E0693-06						
E1	1 693	7	Biased	04-PE-E0693-07	+					
E1	1 693	8	Systematic	04-PE-E0693-08	24-Apr-12	Anthony Smith				

On-Site Laboratory (pCi/g)													
K-40	Ra-226	Cs-137	Bi-214	Pb-214									
9.587	1.224	0.01352	0.6607	0.6848									
11.19	0.8239	-0.001084	0.6204	0.8041									
9.853	0.5957	-0.001048	0.5756	0.6929									
12.81	0.7474	0.0125	0.5136	0.4787									
9.45	0.8164	0.00155	0.4253	0.624									
11.16	0.8517	-0.005392	0.4125	0.6129									
13.33	0.8521	0	0.5497	0.7227									
10.99	0.7246	0.01499	0.6088	0.4824									
11.56	0.6383	-0.009513	0.6611	0.7273									
8.846	1.618	0.01385	0.9045	1.041									
8.932	1.286	-0.007502	0.9762	1.097									
9.209	1.252	0	0.7861	0.824									
8.143	1,725	0.01615	1.137	1.278									
9.664	1.207	0.004073	0.7972	0.9242									
9.615	0.6586	0.01424	0.9295	1.053									
9.856	0.9581	-0.0108	0.3984	0.8761									
11.42	0.5216	-0.001318	0.2918	0.4437									
13.63	0.6136	0	0.343	0.2736									
9.223	0.8276	0.004735	0.468	0.4789									
10.37	0.7319	0.009413	0.4226	0.396									
10.94	0.5759	0.01835	0.3179	0.2949									
10.52	0.8873	0.01685	0.3787	0.3828									
12.82	0.3752	0.001928	0.2875	0.4257									
10.29	0.5444	0.002688	0.395	0.4011									
10.05	0.2719	0.006117	0.4152	0.4421									
13.51	1.128	0.008372	0.2934	0.3993									
11.74	0.3808	0.009345	0.2491	0.3485									
12.78	0.1083	-0.001786	0.01412	0.3935									
10.37	0	0.0002353	0.2806	0.3421									
12.41	0.2256	0.005948	0.3214	0.469									
10.54	0.7034	0.0006072	0.1817	0.2721									
12.64	0.1694	0	0.2648	0.3564									
8.039	0.5271	-0.0447	0.2092	0.3019									
12.81	0.2364	0.001157	0.39	0.2714									
11.01	0.4375	0	0.399	0.3193									
9.848	0.6194	0.01099	0.3178	0.3537									
10.25	1.027	0.0006993	0.8814	0.8847									
10.28	0.5294	0.007548	0.6713	0.6729									
9.942	0.8699	-0.00798	0.8012	0.9899									
10.99	1.374	0.004395	0.6647	0.667									
10.73	0.947	-0.003895	0.6488	0.7013									
9.629	0.7903	0.01272	0.7558	0.9325									
10.73	1.155	-0.0001435	0.926	1.052									
10.24	0.5115	0.01144	0.6164	0.5788									

Off-Site Laboratory (pCi/g) Pb-214 Cs-137 Bi-214

	Survey	Sample	Sample	Sample	Date	COC Radiological
Area	Unit	Point	Туре	ID	Collected	Technician
E11	693	9	Systematic	04-PE-E0693-09	24-Apr-12	Anthony Smith
E11	693	10	Systematic	04-PE-E0693-10	24-Apr-12	Anthony Smith
E11	693	11	Systematic	04-PE-E0693-11	24-Apr-12	Anthony Smith
E11	693	12	Systematic	04-PE-E0693-12	24-Apr-12	Anthony Smith
E11	693	13	Systematic	04-PE-E0693-13	24-Apr-12	Anthony Smith
E11	693	14	Systematic	04-PE-E0693-14	24-Apr-12	Anthony Smith
E11	693	15	Systematic	04-PE-E0693-15	24-Apr-12	Anthony Smith
E11	693	16	Systematic	04-PE-E0693-16	24-Apr-12	Anthony Smith
E11	693	17	Systematic	04-PE-E0693-17	24-Apr-12	Anthony Smith
E11	693	18	Systematic	04-PE-E0693-18	24-Apr-12	Anthony Smith
E11	693	19	Systematic	04-PE-E0693-19	24-Apr-12	Anthony Smith
E11	693	20	Systematic	04-PE-E0693-20	24-Apr-12	Anthony Smith
E11	693	21	Systematic	04-PE-E0693-21	24-Apr-12	Anthony Smith
E11	693	22	Systematic	04-PE-E0693-22	24-Apr-12	Anthony Smith
E11	693	23	Systematic	04-PE-E0693-23	24-Apr-12	Anthony Smith
E11	693	24	Systematic	04-PE-E0693-24	24-Apr-12	Anthony Smith
E11	693	25	Systematic	04-PE-E0693-25	24-Apr-12	Anthony Smith

On-Site Laboratory (pCi/g)													
K-40	Ra-226	Cs-137	Bi-214	Pb-214									
10.92	0.4133	0.01087	0.3187	0.503									
10.31	1.338	0.01523	0.4785	0.5214									
10.72	0.4259	0.01231	0.3547	0.4473									
10.61	0.6146	0.02235	0.3334	0.5176									
11.38	0.5131	0.01199	0.5798	0.6619									
12.17	0.5977	0.001776	0.4368	0.7337									
7.931	1.037	0.006561	0.7728	0.8283									
7.963	0.7701	0.002913	0.578	0.6613									
10	0.8577	0.01198	0.5866	0.6778									
11.28	0.9163	0.01309	0.6664	0.7133									
13.53	0.8076	0.01283	0.5062	0.6525									
10.37	1.266	0.007697	0.7124	0.7932									
8.877	1.009	-0.008686	0.63	0.6624									
10.51	0.3598	0.01141	0.5688	0.6172									
8.058	0.7641	-0.002274	0.649	0.7244									
9.748	0.6598	0.01433	0.4658	0.5373									
10.48	0.976	0.003956	0.3183	0.5567									

K-40 Ra-226 Cs-137 Bi-214 Pb-214

Off-Site Laboratory (pCi/g)

Highlighted Activities: K-40 ≤ 3.0 ; Ra-226 ≥ 1.485 (On-site) & 1.625 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

Date: Time:				INSTRUMENTA	TION USED		
5/31/2012 12:40	Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
Survey Number: HPS-SU-304							
Location: Parcel C							
Surveyor: R. Roberson							
Reviewed By: (Print & Sign)	2350-1 44-10	120588 81878	10/16/2012				
Isotopes of Concern: ²²⁶ Ra ⁹⁰ Sr ¹³⁷ Cs							
Description of drawing:	Trench Sca	an Survey					
A A		10 STA	В				
02-C32-00-1L SM-1336 02-C32-00-1A 300 17 19 19 19 19 19 19 19 19 19 19	91 11 11 11 11 11 11 11 11 11 11 11 11 1	02 C32 00- 02 C32 00- 4-5-		02-C32-00	Ož . MH	1-1337	
02-C32-00-1E M4-1330 M4-1330 02-C32-00-1D 02-C32-00-1D		02-C32-00-1F		02-C32-00-1	(F) 1 1 1004	1339	DETAIL D
		С		0.1030	193		(feet)
Comments: Scan range for 2350-1 Instrument is 3.26 - 5.85 Kcp 3 sigma investigation level for 2350-1 Instrument is Picture is representative of material surveyed.					# denotes G/A n # / # denotes conta denotes highe LAW denotes large denotes static Unless Otherw	ct / 1 meter radiation n st radiation reading on area masslinn wipe location.	sadings. contact

SURVEYO	DR: R. Ro	berson		90000000000000000000000000000000000000	LOCATION:	Parcel C			
	Exposu (pR		Gamma	Fixed + Ren	novable (NET)	Remova	ble (NET)	Comments	
Location	Contact	1 Meter	(cpm)	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2		
11			5107						
12			5033						
13			5266						
14			5119						
15			5270						
16			5099						
17			5221						
18			5319						
19			5001						
20			5177						
21			5306						
22			5100						
23			5061						
24			5421						
25			5393						
26			5803						
27			5150						
28			5241						
Reviewer							Date:		

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	A/M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A/N	A/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A/A	N/A	N/A	N/A	N/A	N/A	N/A
	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller	Thorpe.Miller
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TETRATECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

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TETRATECH EC, INC. 1230 Columbia St, Sulte 750

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TETRATECH EC, INC.
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